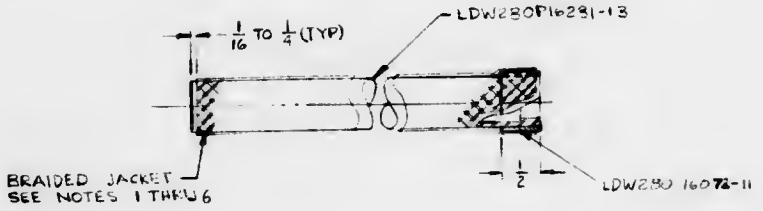
GRUMMAN AIRCRAFT ENGINEERING CORP.
CODE IDENT NO. 30112

LDW280 16071 R 47

3 LDW280A5193



LDW280-16071-1 ASSY

NOTES:
1- THE BRAIDED JACKET SHALL BE MADE USING GTS34A-2 DACRON THREAD.
2- ONLY THE FOLLOWING EQUIPMENT OR EQUIVALENT AS APPROVED BY MANUFACTURING ENGINEERING SHALL BE USED:
BRAIDING MACHINE - 24, 32 & 64 SPOOL CAPACITY, NEW ENGLAND BUTT CO., PROVIDENCE, R.I.
3- THE BRAIDED JACKET IS TO BE FORMED ON A 1 INCH DIA. TUBE. AFTER FORMING SLIP JACKET OFF THE SPINDLE & ONTO LDW280P16231-13.
4- HEAT SEAL BOTH ENDS 1/8 - 1/4 BACK FROM THE EDGE OF THE JACKET
5- EITHER SINGLE OR DOUBLE THICKNESS JACKET IS PERMISSABLE
6- INSPECTION - THE BRAIDING SHALL BE VISUALLY INSPECTED AND NON-CONFORMANCE WITH THE FOLLOWING SHALL BE CAUSE FOR REJECTION OR SUBMISSION TO MATERIAL REVIEW BOARD.
A - THE BRAIDING SHALL BE FIRM, UNIFORM & FREE FROM FRAYED THREADS.
B - THE BRAIDING SHALL COVER THE AREA OF THE TUBE AS INDICATED
C - THERE SHALL BE NO EVIDENCE OF EXCESSIVE LUMPING OR ADDED JACKET THICKNESS

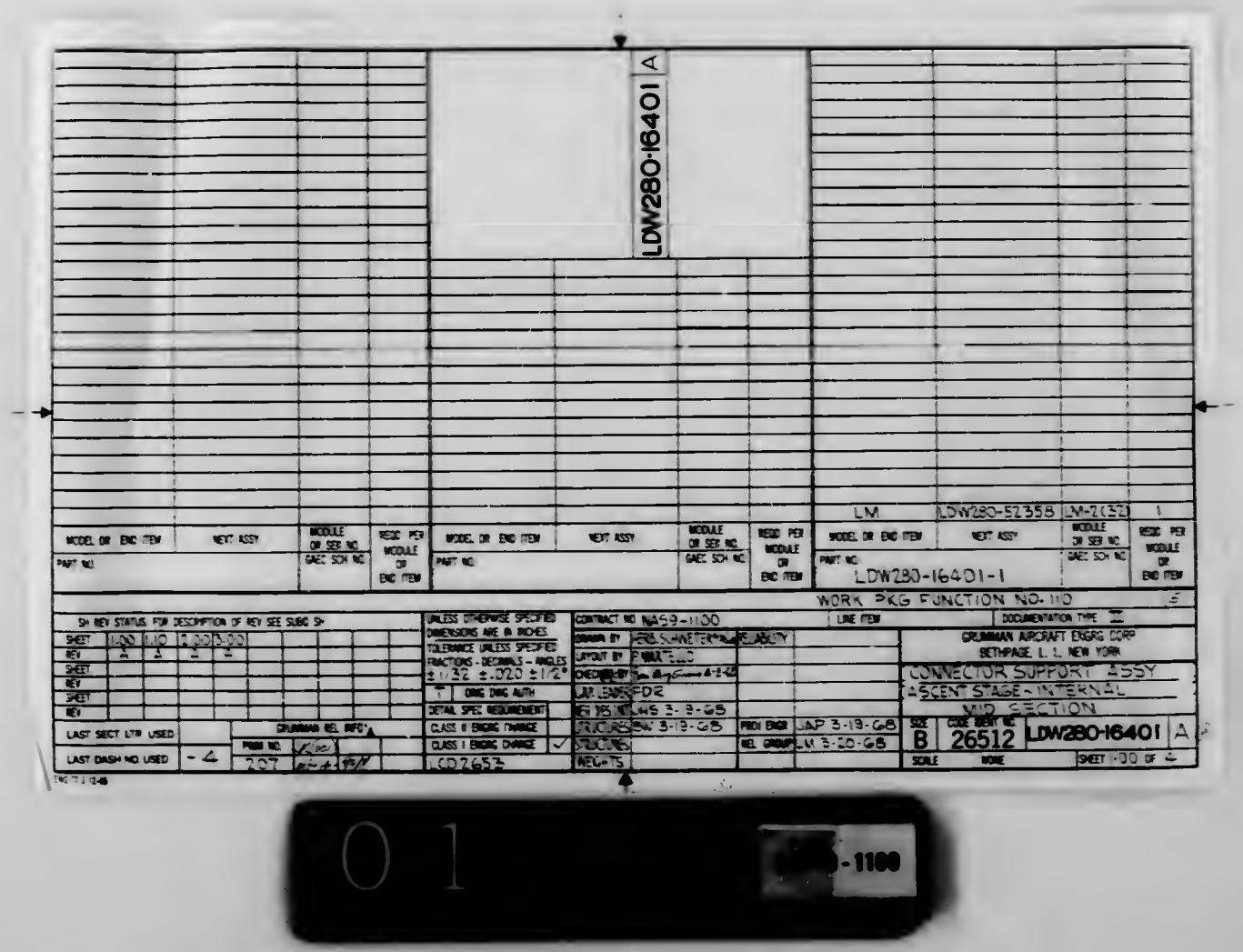
EFF	N/A	REQD/MOD
TH 4	LTH 280-90068	1
LH-1 (31)	LDW 280-51364	1
LH-2 (32)	LDW 280-52364	1
LH 3 (33) THRU LH 15 (95)	LDW 280-53364	1

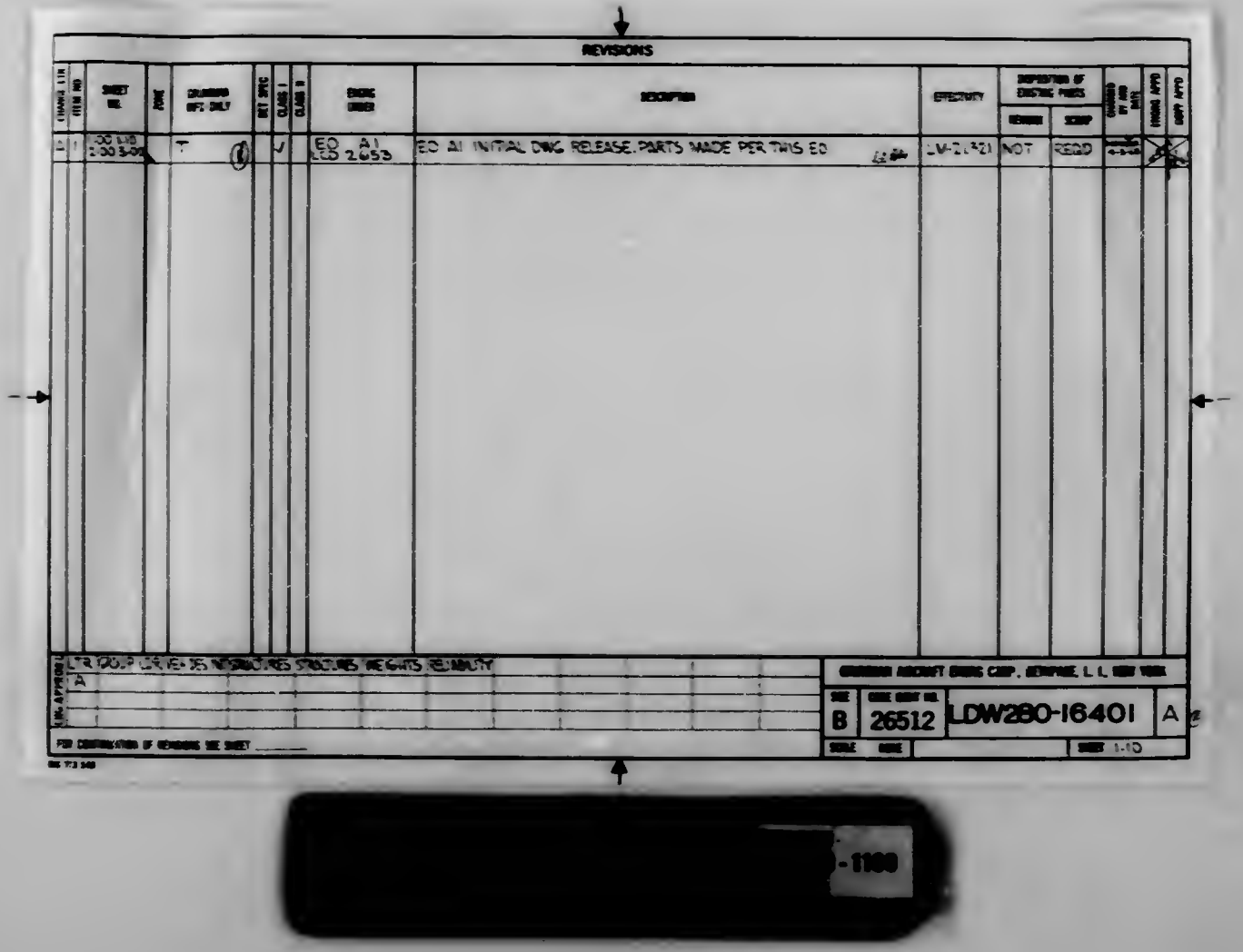
TOL FRACTION ±1/32
INT : E

* DWG NOT MADE

3

| | | |


LDW280-16401 A
LM
LDW280-52358
LM-2(32)
1
LDW280-16401-1
WORK PKG FUNCTION NO. 110
CONTRACT NO NAS9-1100
GRUMMAN AIRCRAFT ENGRG CORP
BETHPAGE, L. I. NEW YORK
CONNECTOR SUPPORT ASSY
ASCENT STAGE - INTERNAL
MID SECTION
LDW280-16401 A
B
26512
SHEET 100 OF 2
LAST SECT LTR USED
LAST DASH NO USED
- 2
CD2652
01
-1100



REVISIONS

CHANGE LTR	ITEM NO	SHEET NO	ZONE	DRAWING APPL ONLY	INT SPEC	CLASS I	CLASS II	ENGG ORDER	DESCRIPTION	EFFECTIVITY	DISPOSITION OF EXISTING PARTS: REWORK	DISPOSITION OF EXISTING PARTS: SCRAP	CHANGED BY AND DATE	ENGG APPD	QUALITY APPD
A	1	1-10 1-30 3-30	T			V		ED A1 LCD 2653	ED A1 INITIAL DWG RELEASE. PARTS MADE PER THIS ED	LM-21-321	NOT	REQD			

L TR GROUP LTR IS-35 INSTRUCTURES STRUCTURES WEIGHTS RELIABILITY

A

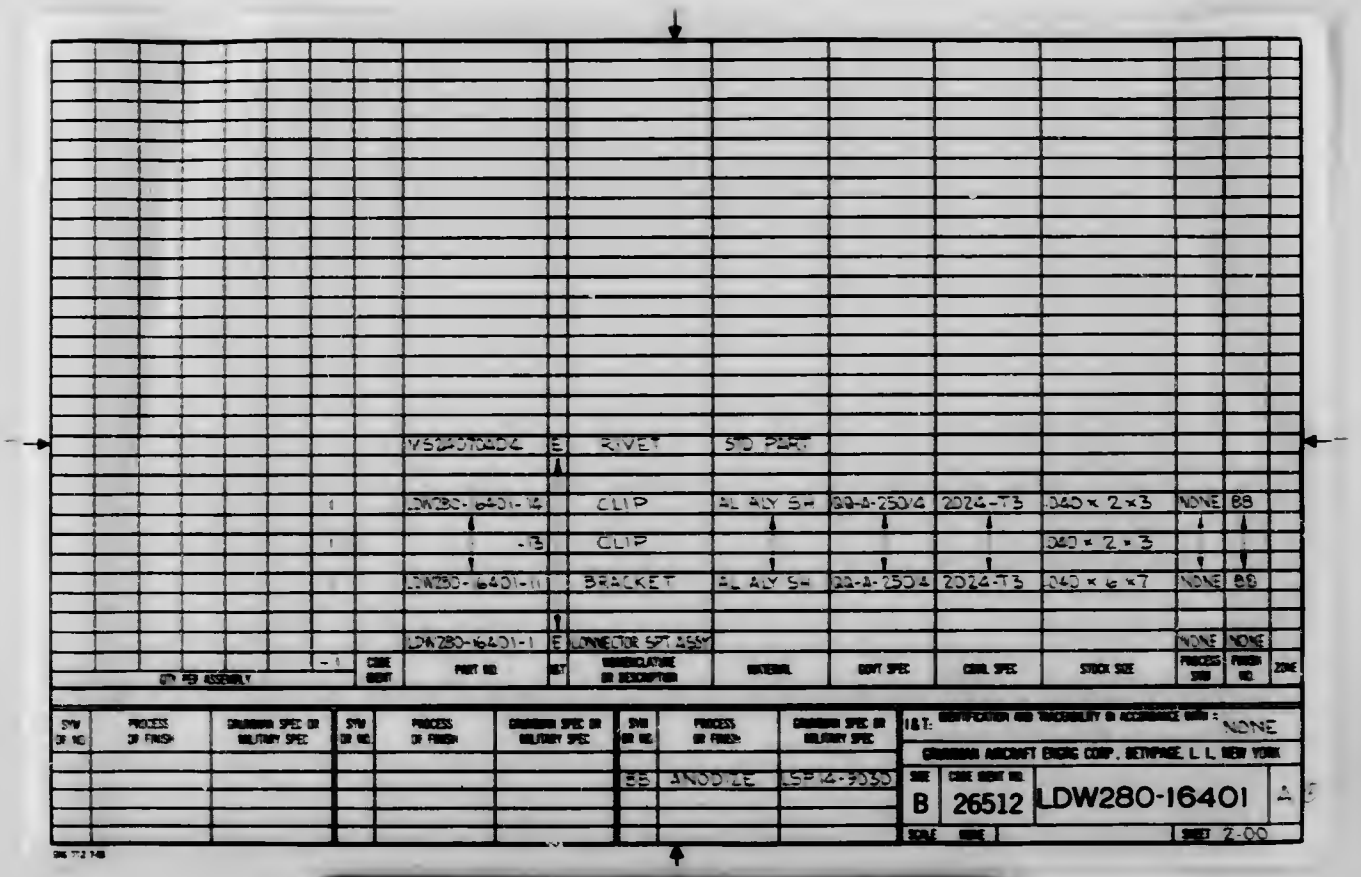
FOR DISTRIBUTION OF REVISIONS SEE SHEET _____

GRUMMAN AIRCRAFT ENGG CORP., BETHPAGE, L.I., NEW YORK

SIZE	CODE IDENT NO.	DWG NO.	REV
B	26512	LDW280-16401	A

SCALE NONE SHEET 1-10

[redacted]-1100



QTY PER ASSEMBLY	CAGE IDENT	PART NO.	NOT	NOMENCLATURE OR DESCRIPTION	MATERIAL	SPEC	SPEC	STOCK SIZE	PROCESS SPEC	FINISH NO.	ZONE
		MS21044D4	E	RIVET	STD PART						
1		LDW280-16401-14		CLIP	AL ALY SH	QQ-A-250/4	2024-T3	.040 x 2 x 3	NONE	B8	
1		-13		CLIP				.040 x 2 x 3			
1		LDW280-16401-11		BRACKET	AL ALY SH	QQ-A-250/4	2024-T3	.040 x 6 x 7	NONE	B8	
		LDW280-16401-1	E	CONNECTOR SPT ASSY					NONE	NONE	

SYM OR NO.	PROCESS OR FINISH	GRUMMAN SPEC OR MILITARY SPEC	SYM OR NO.	PROCESS OR FINISH	GRUMMAN SPEC OR MILITARY SPEC	SYM OR NO.	PROCESS OR FINISH	GRUMMAN SPEC OR MILITARY SPEC
						E5	ANODIZE	LSP 12-9050

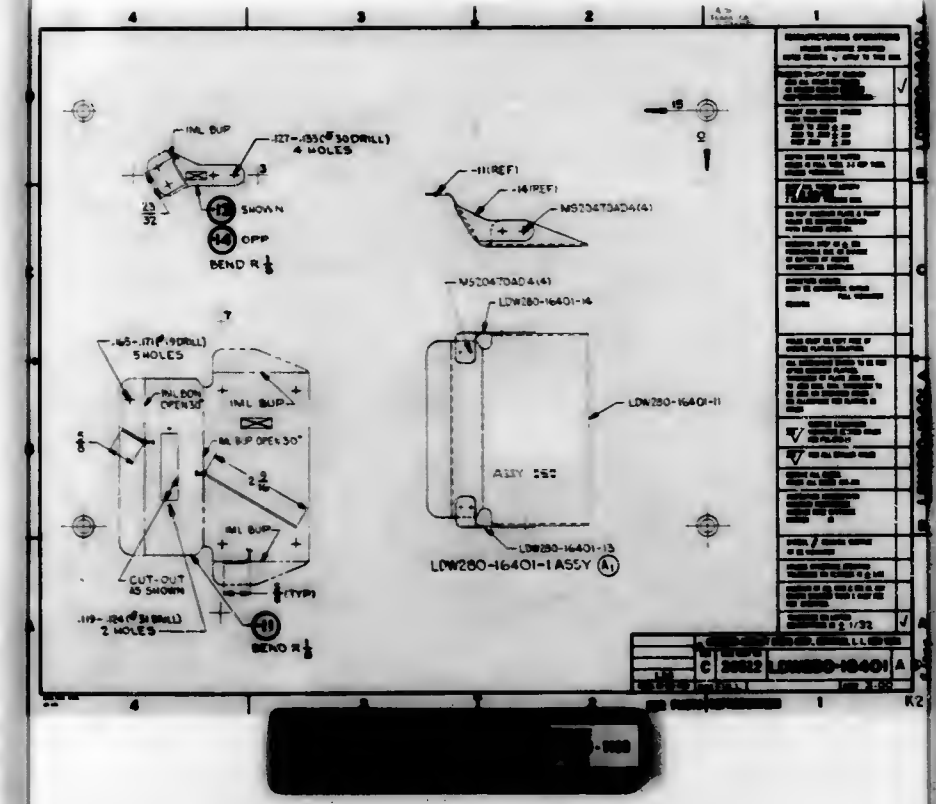
I&T: IDENTIFICATION AND TRACEABILITY IN ACCORDANCE WITH: NONE

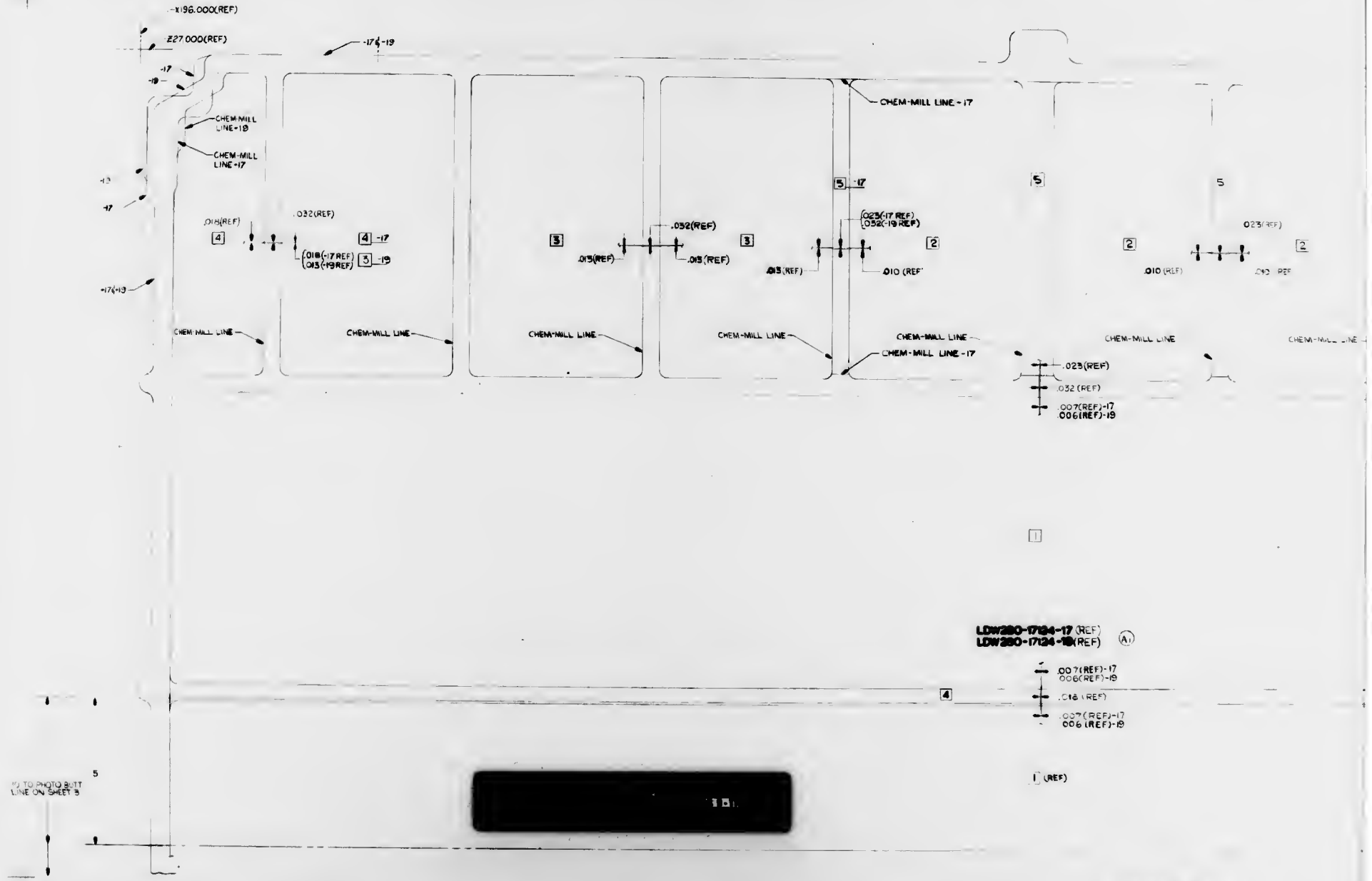
GRUMMAN AIRCRAFT ENGRG CORP., BETHPAGE, L.I., NEW YORK

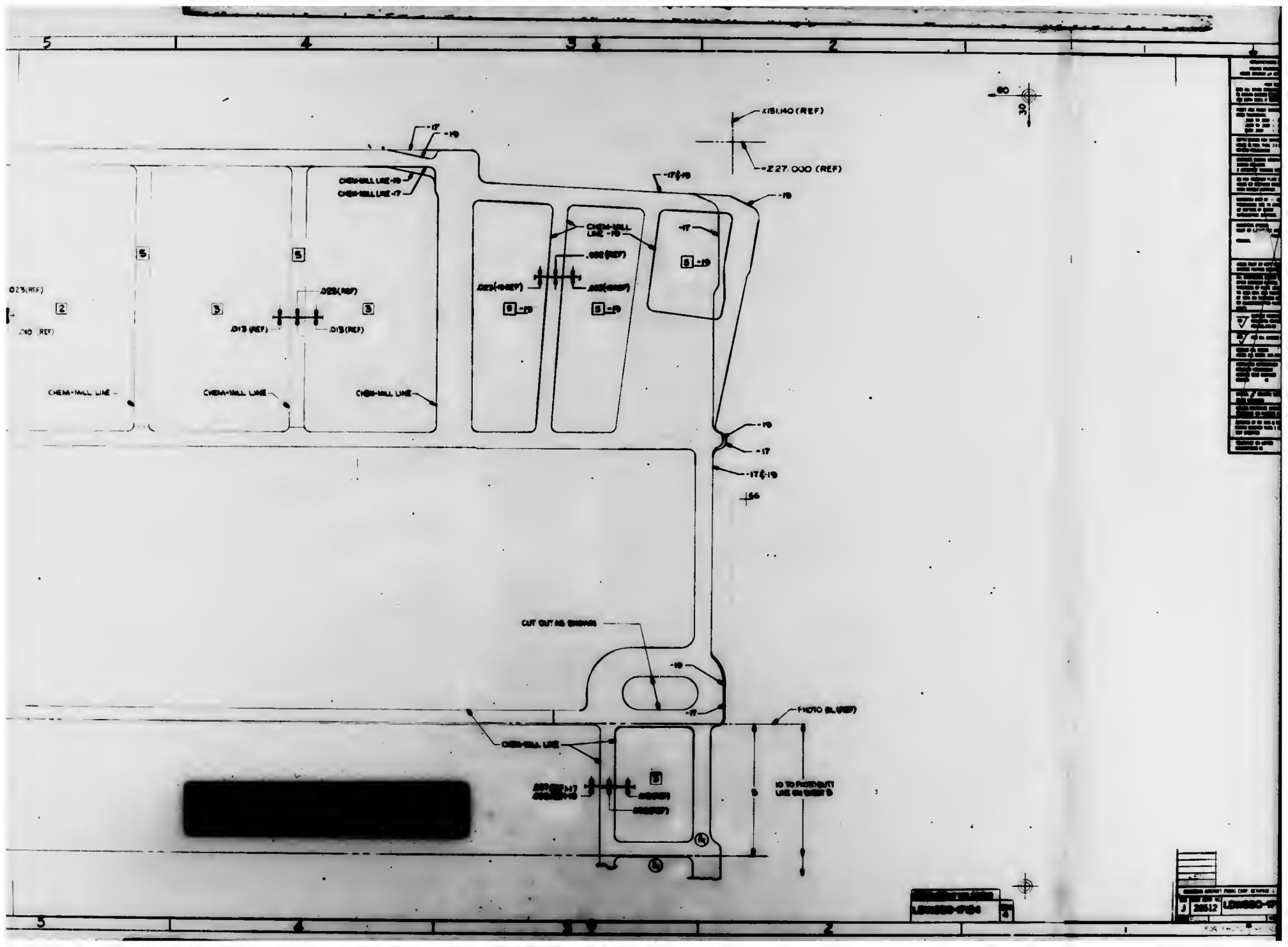
SIZE	CAGE IDENT NO.	
B	26512	LDW280-16401

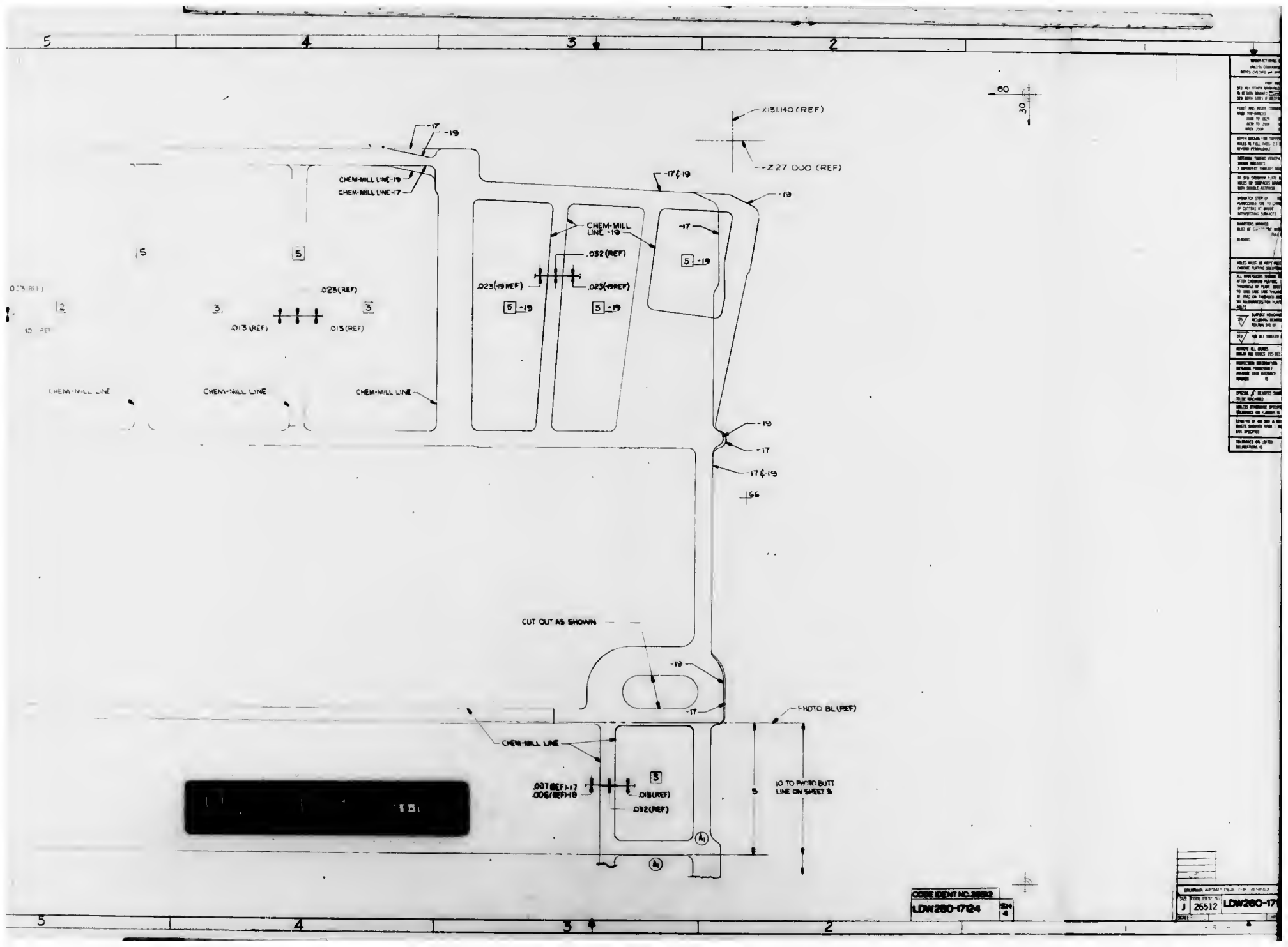
SCALE NONE SHEET 2-00

01 -1100


INL BUP
.127-.135(Ø3.30 DRILL)
4 HOLES
SHOWN
OPP
BEND R 1/8
-11(REF)
-14(REF)
MS20473AD4(4)
MS20470AD4(4)
LDW280-16401-14
LDW280-16401-11
ASSY
LDW280-16401-13
LDW280-16401-1 ASSY
.165-.171(Ø4.19 DRILL)
5 HOLES
INL BUP OPEN 30°
CUT-OUT AS SHOWN
.119-.124(Ø3 DRILL)
2 HOLES
BEND R 1/8
C
20812
LDW280-16401
A

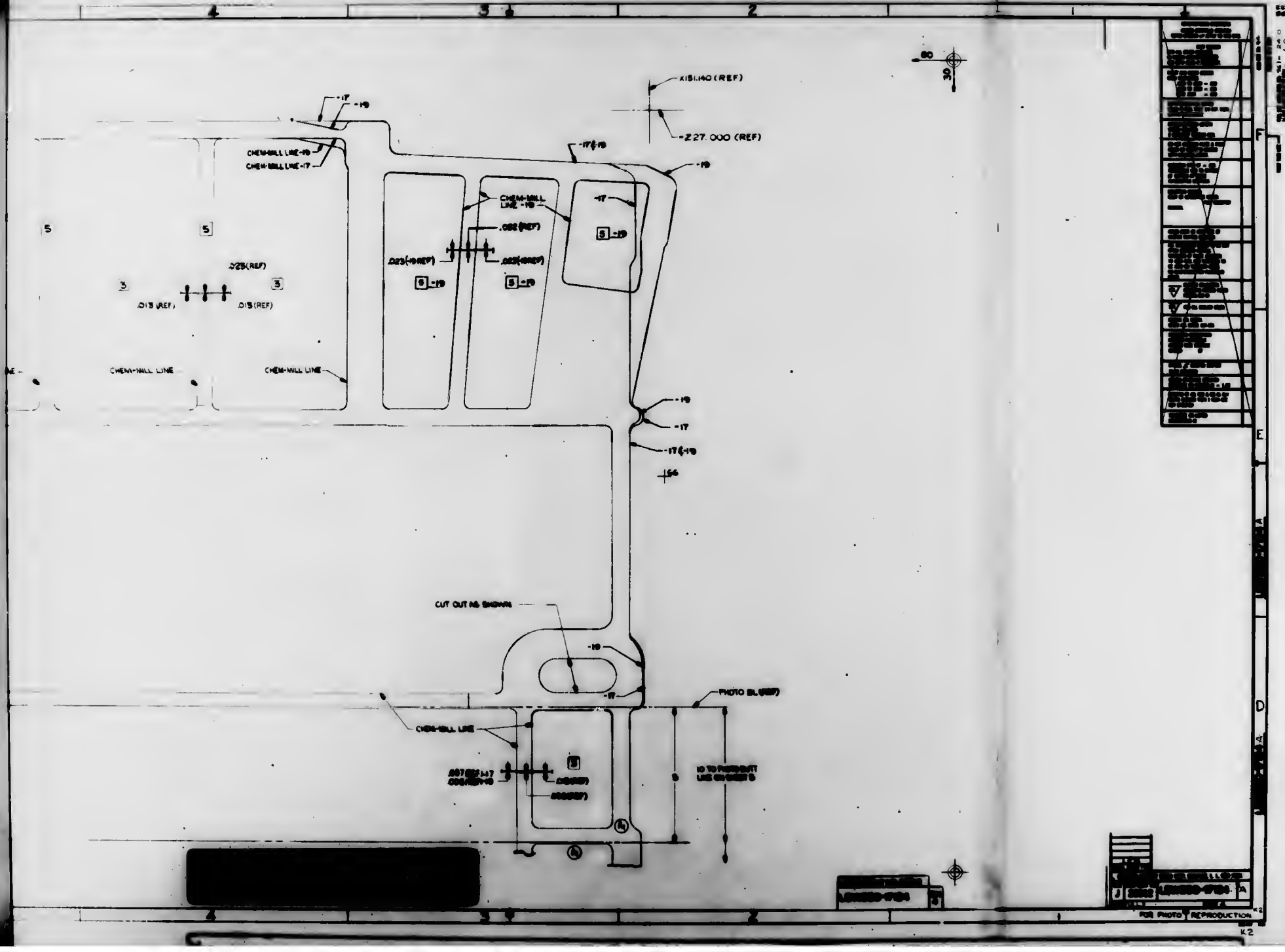

X196.000(REF)
Z27.000(REF)
-17
-19
-17&-19
CHEM-MILL LINE-19
CHEM-MILL LINE-17
-13
-17
.018(REF)
.032(REF)
4
4 -17
(.018(-17 REF)
.013(-19 REF)
5 -19
-17&-19
CHEM-MILL LINE
CHEM-MILL LINE
CHEM-MILL LINE
CHEM-MILL LINE
CHEM-MILL LINE-17
5 -17
3
.032(REF)
.013(REF)
.013(REF)
3
.023(-17 REF)
.032(-19 REF)
.013(REF)
.010 (REF
2
5
2
.023(REF)
.010 (REF)
.043 REF
2
CHEM-MILL LINE
CHEM-MILL LINE
CHEM-MILL LINE-17
.023(REF)
.032 (REF)
.007(REF)-17
.006(REF)-19
LDW280-17124-17 (REF)
LDW280-17124-19(REF)
A1
.007(REF)-17
.006(REF)-19
4
.018 (REF)
.007(REF)-17
.006(REF)-19
1 (REF)
TO PHOTO BUTT LINE ON SHEET 3
5
[redacted]
CODE IDENT NO.80882
LDW280-17124
SH 4
9
8
7
6
5
F
E
D


X181.140 (REF)
Z 27.000 (REF)
CHEM-MILL LINE -19
CHEM-MILL LINE -17
CHEM-MILL LINE
CUT OUT AS SHOWN
PHOTO BLUED
TO TRAILING EDGE
[redacted]



CODE IDENT NO. 38898
LDW280-17124
SH 4

SIZE J
CODE IDENT NO. 26512
LDW280-17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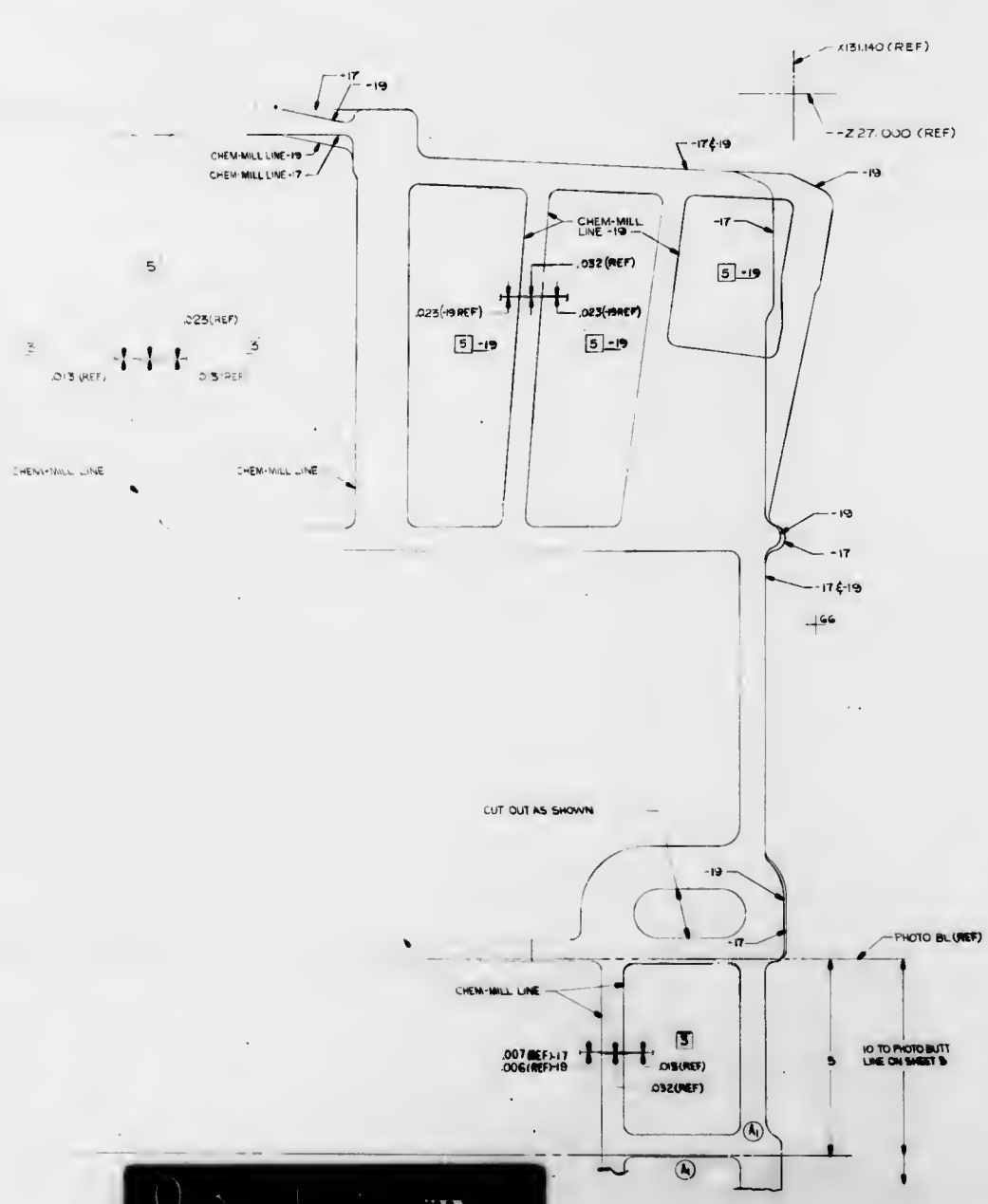
Z 27.000 (REF)
CHEM-MILL LINE -19
CHEM-MILL LINE -17
CHEM-MILL LINE -19
.025(REF)
.013 (REF)
.013(REF)
CHEM-MILL LINE
CHEM-MILL LINE
.025(-19 REF)
.023(-19 REF)
.002 (REF)
.002(-19 REF)
CUT OUT AS SHOWN
PHOTO BL (REF)
CHEM-MILL LINE
.007(REF)
.002(REF)
FOR PHOTO REPRODUCTION



CODE IDENT NO. 28512
LDW280-17124
SH 4

J 28512 LDW280-17124 A

FOR PHOTO REPRODUCTION

CALIFORNIA AIRCRAFT ENGINEERING CORP

As MOD Rec Per [illegible] Add LEM-2(32) & LEM-3(33) EFFECTIVITY TO THE FOLLOWING DWGS

DASH NO	CO CODE	DRAWING TITLE
LDW280 [illegible]	[illegible]	[illegible]
17129	[illegible]	[illegible]
17130	[illegible]	[illegible]
17264	[illegible]	[illegible]
17265	[illegible]	[illegible]
LDW280-17268	A-1	[illegible]
LDW280M17101	A-1	[illegible]
17102	B-2	[illegible]
17103	B-2	[illegible]
17104	B-2	[illegible]
17105	B-2	[illegible]
17110	A-2	CAPSTEP AFT LH & RH UPPER
17111	B-1	CAPSTEP LH CUT FWD UPPER
17112	B-1	CAPSTEP FWD CUT AFT UPPER
17113	B-1	CAPSTEP FWD CUT LH & RH UPPER
17125	B-2	PTG LANDING GEAR SHIFT & LEM/SLA INTERFACE
17131	A-1	PTG STL ENG MOUNT TRUSS SPT LOWER
17138	A-1	[illegible]
17141	A-1	PTG LDG GEAR ACT SUPT
17146	A-1	PTG AXL SUPT BEAM LOR CORNER SPLICE
17147	A-1	PTG AXL SUPT BEAM UPR CORNER SPLICE
17149	A-1	STRUT O/S LANDING GEAR OUTBOR UPR INTEGRAL
17150	A-2	STRUT O/S LANDING GEAR OUTBOR LWR INTEGRAL
17155	A-1	STIFFENER O/S FWD CAMP PIVOT FTG BEAM PAL SUPPORT
17156	A-1	STIFFENER O/S MAIN PAL AFT
17159	A-1	BILLET DIS LANDING GEAR OUTBOR UPR INTEGRAL STRUT
17160	A-1	BILLET DIS LANDING GEAR OUTBOR LWR INTEGRAL STRUT
LDW280M17225	A-1	PIN O/S OUTBOR TRUSS SUPPORT
LDW280-17267	A-1	CLIP O/S ENGINE TRUSS SPT LOWER
LDW280M17109	A-1	CAPSTEP LH & RH FWD UPPER

QUANTITIES & NEXT ASSEMBLIES SHALL BE THE SAME AS LTA-3

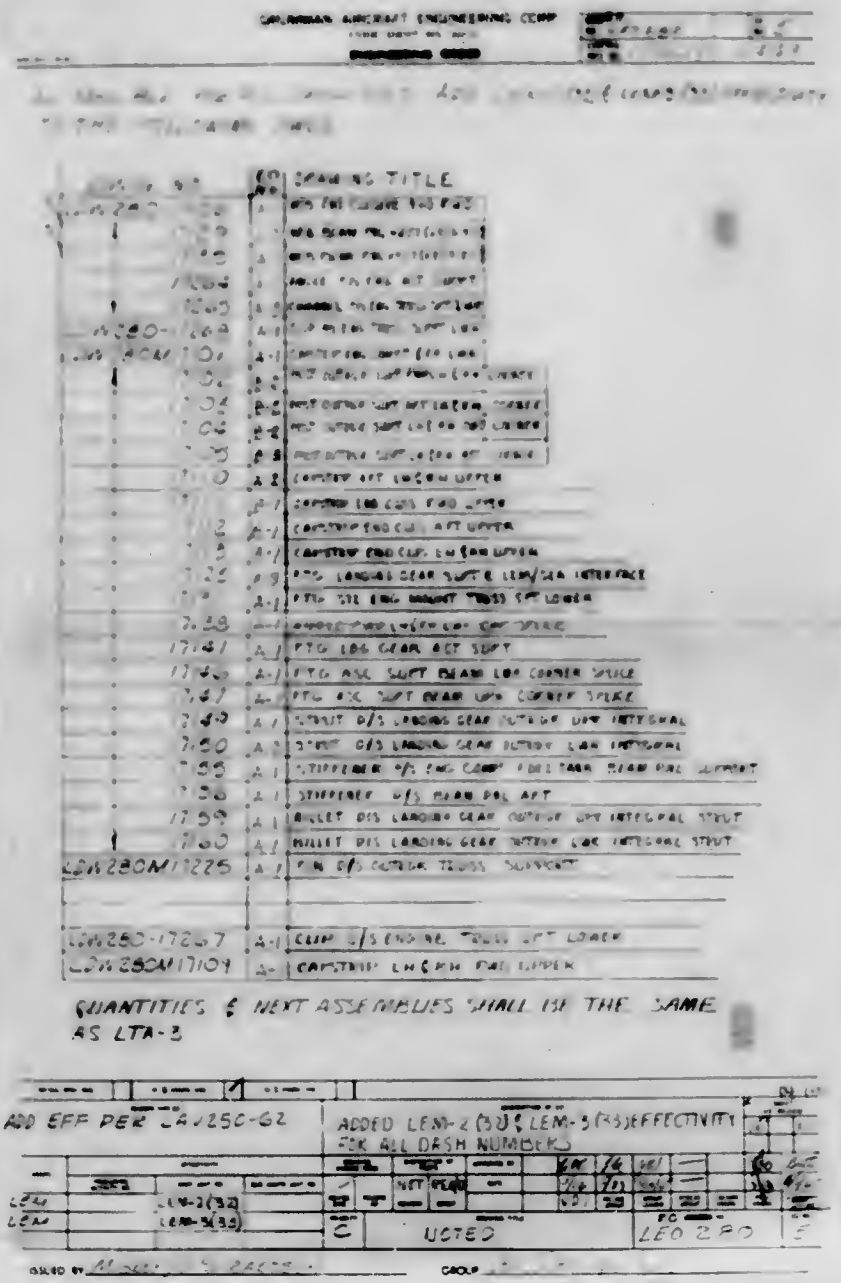
ADD EFF PER LAV250-62

ADDED LEM-2 (32) & LEM-3 (33) EFFECTIVITY FOR ALL DASH NUMBERS

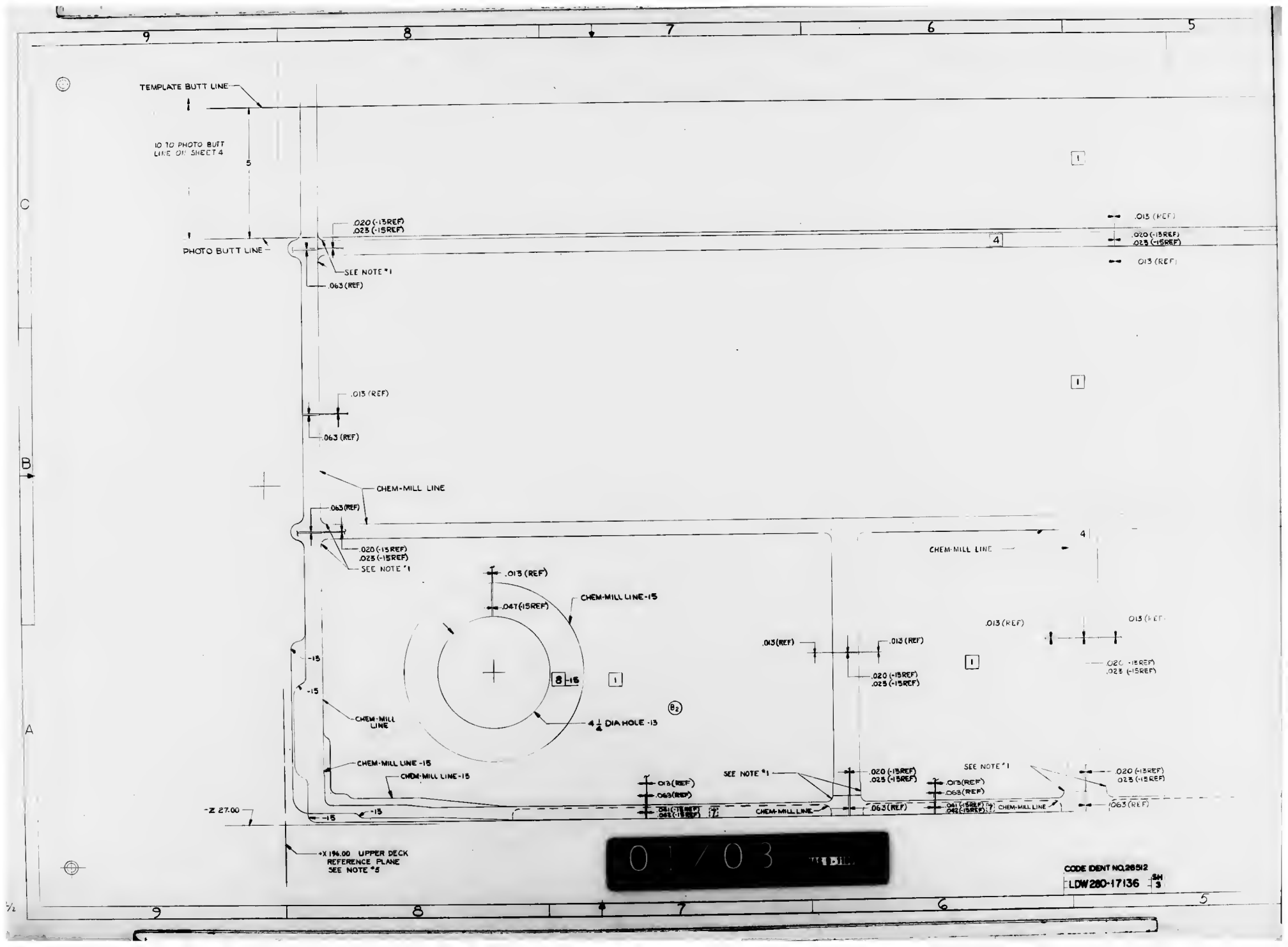
LEM		LEM-2(32)														
LEM		LEM-3(33)														
			C		UCTED									PO LEO 280		5

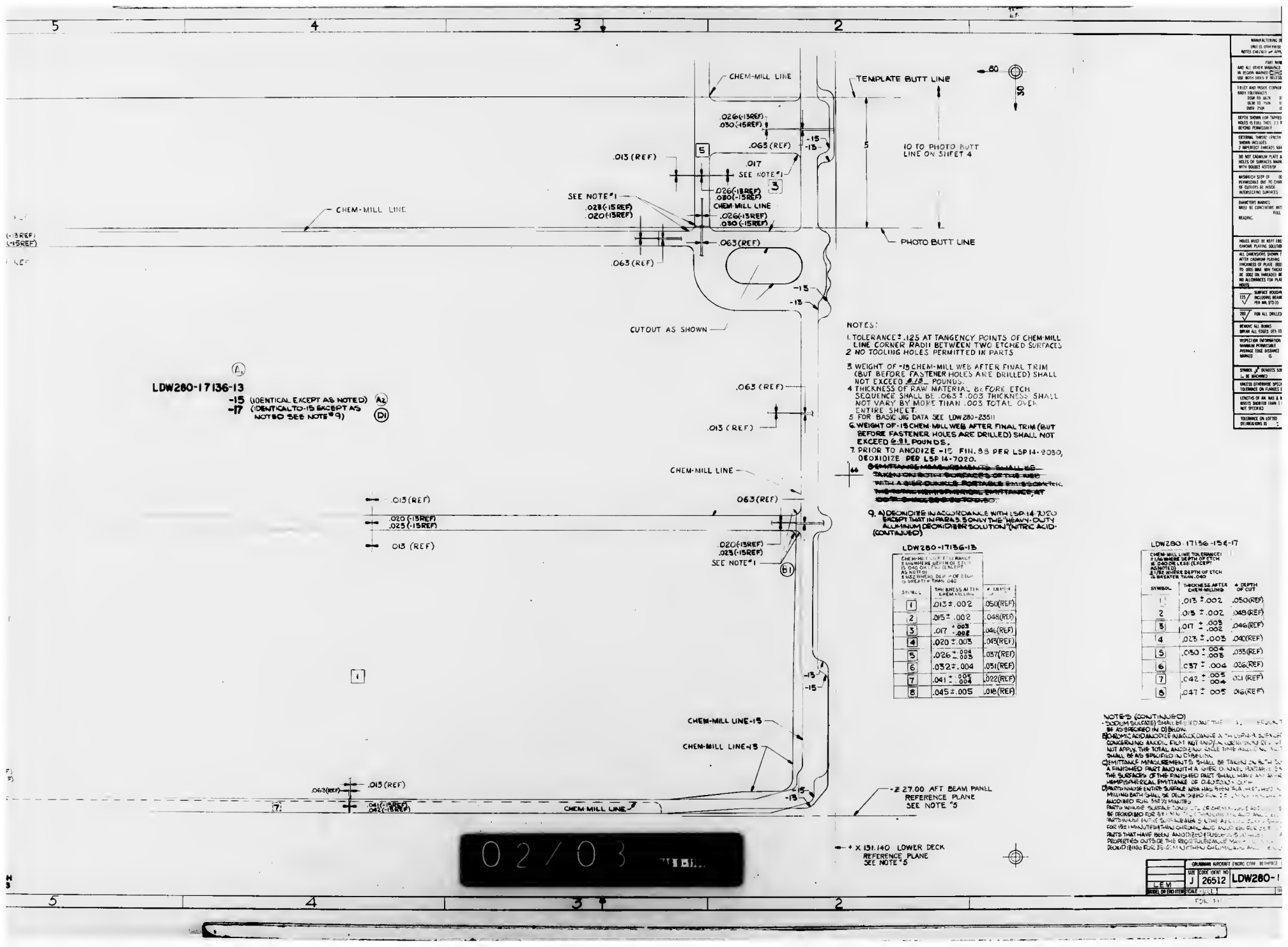
ISSUED BY ALBERT ALSTRACCI GROUP LEM [illegible]

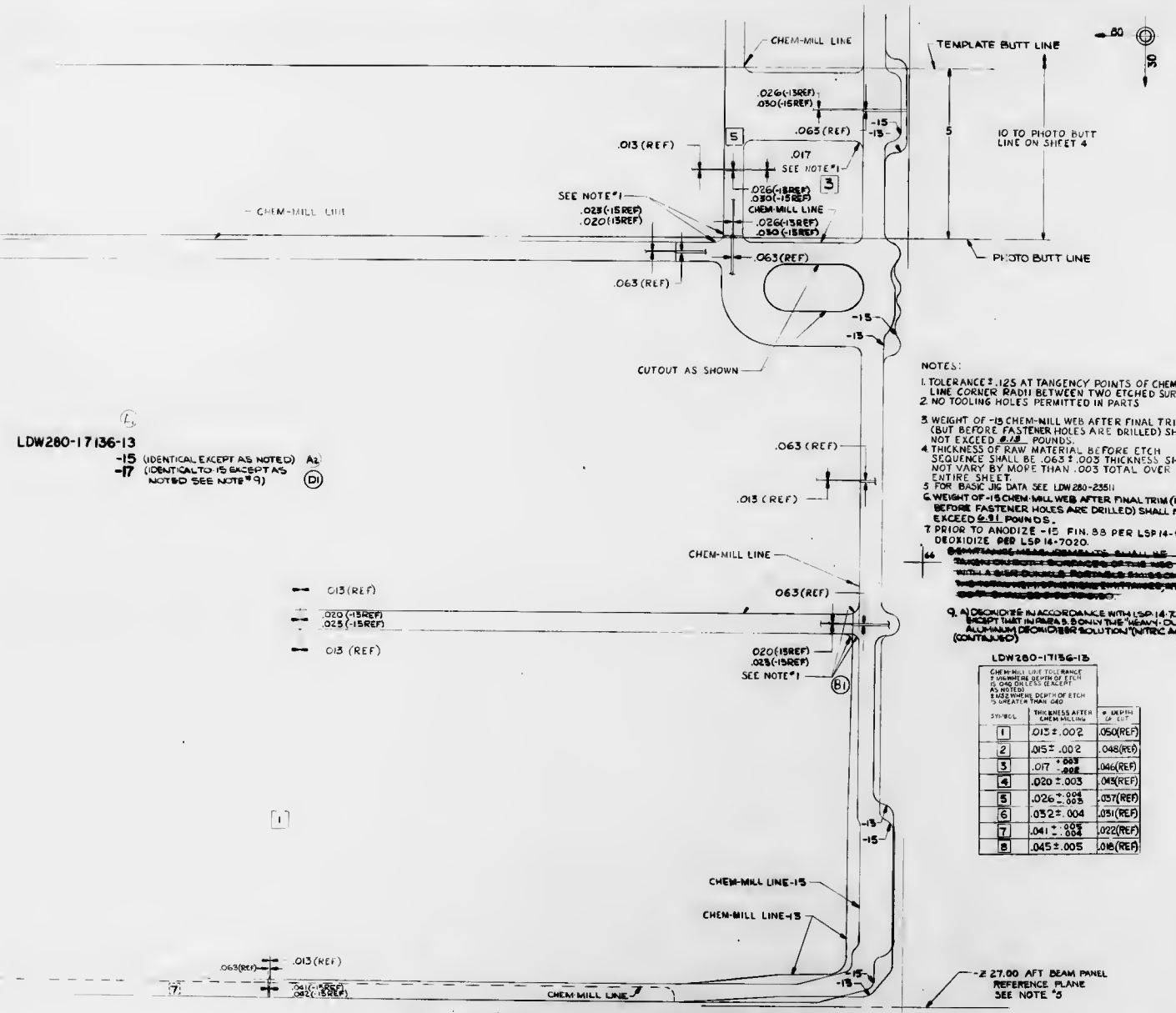
01
GOLL-O SVN



DASH NO	TITLE


TEMPLATE BUTT LINE
10 TO PHOTO BUTT LINE ON SHEET 4
5
PHOTO BUTT LINE
.020 (-13REF)
.023 (-15REF)
SEE NOTE *1
.063 (REF)
.013 (REF)
.063 (REF)
CHEM-MILL LINE
.063(REF)
.020 (-15REF)
.023 (-15REF)
SEE NOTE *1
.013 (REF)
.047 (15REF)
CHEM-MILL LINE-15
-15
-15
CHEM-MILL LINE
4 1/4 DIA HOLE -13
CHEM-MILL LINE -15
CHEM-MILL LINE-15
-Z 27.00
-15
-15
+X 196.00 UPPER DECK REFERENCE PLANE SEE NOTE *5
CHEM-MILL LINE
.013 (REF)
.063 (REF)
.020 (-13REF)
.023 (-15REF)
SEE NOTE *1
.013 (REF)
.063 (REF)
.063 (REF)
CHEM-MILL LINE
.020 (-13REF)
.023 (-15REF)
.063 (REF)
01/03
CODE IDENT NO.28512
LDW280-17136
SH 3


CHEM-MILL LINE
TEMPLATE BUTT LINE
.80
.50
.026(-13REF)
.030(-15REF)
.063(REF)
-15
-13
.013 (REF)
5
.017
SEE NOTE "1"
10 TO PHOTO BUTT LINE ON SHEET 4
3
.026(-13REF)
.030(-15REF)
SEE NOTE "1"
.023(-15REF)
.020(-13REF)
CHEM-MILL LINE
.026(-13REF)
.030(-15REF)
PHOTO BUTT LINE
.063(REF)
.063 (REF)
CUTOUT AS SHOWN
NOTES:
1. TOLERANCE ±.125 AT TANGENCY POINTS OF CHEM-MILL LINE CORNER RADII BETWEEN TWO ETCHED SURFACES
2 NO TOOLING HOLES PERMITTED IN PARTS
3. WEIGHT OF -13 CHEM-MILL WEB AFTER FINAL TRIM (BUT BEFORE FASTENER HOLES ARE DRILLED) SHALL NOT EXCEED 6.78 POUNDS.
4 THICKNESS OF RAW MATERIAL BEFORE ETCH SEQUENCE SHALL BE .063 ±.003 THICKNESS SHALL NOT VARY BY MORE THAN .003 TOTAL OVER ENTIRE SHEET.
5 FOR BASIC JIG DATA SEE LDW280-23511
6. WEIGHT OF -15 CHEM-MILL WEB AFTER FINAL TRIM (BUT BEFORE FASTENER HOLES ARE DRILLED) SHALL NOT EXCEED 6.91 POUNDS.
7. PRIOR TO ANODIZE -15 FIN. 88 PER LSP 14-2030, DEOXIDIZE PER LSP 14-7020.
8. EMITTANCE MEASUREMENTS SHALL BE TAKEN ON FLAT SURFACES OF THE WEB WITH A 6 INCH DIAMETER PORTABLE EMISSOMETER. THE MINIMUM HEMISPHERICAL EMITTANCE AT 500°F SHALL BE 0.80.
9. a) DEOXIDIZE IN ACCORDANCE WITH LSP 14-7020 EXCEPT THAT IN PARA 5.5 ONLY THE "HEAVY-DUTY ALUMINUM DEOXIDIZER SOLUTION "NITRIC ACID-(CONTINUED)
LDW280-17136-13
-15 (IDENTICAL EXCEPT AS NOTED) A2
-17 (IDENTICAL TO -15 EXCEPT AS NOTED SEE NOTE "9") D1
.063 (REF)
.013 (REF)
CHEM-MILL LINE
.063(REF)
.013 (REF)
.020 (-13REF)
.025 (-15REF)
.013 (REF)
.020(-13REF)
.023(-15REF)
SEE NOTE "1"
B1
LDW280-17136-13
CHEM-MILL LINE TOLERANCE ± 1/64 WHERE DEPTH OF ETCH IS .040 OR LESS (EXCEPT AS NOTED) ± 1/32 WHERE DEPTH OF ETCH IS GREATER THAN .040
SYMBOL | THICKNESS AFTER CHEM-MILLING | ∅ DEPTH OF CUT
1 | .013 ±.002 | .050(REF)
2 | .015 ±.002 | .048(REF)
3 | .017 +.003 -.002 | .046(REF)
4 | .020 ±.003 | .043(REF)
5 | .026 ±.004 -.003 | .037(REF)
6 | .032 ±.004 | .031(REF)
7 | .041 ±.005 -.004 | .022(REF)
8 | .045 ±.005 | .018(REF)
LDW280-17136-154-17
CHEM-MILL LINE TOLERANCE ± 1/64 WHERE DEPTH OF ETCH IS .040 OR LESS (EXCEPT AS NOTED) ± 1/32 WHERE DEPTH OF ETCH IS GREATER THAN .040
SYMBOL | THICKNESS AFTER CHEM-MILLING | ∅ DEPTH OF CUT
1 | .013 ±.002 | .050(REF)
2 | .015 ±.002 | .048(REF)
3 | .017 +.003 -.002 | .046(REF)
4 | .023 ±.003 | .040(REF)
5 | .030 +.004 -.003 | .033(REF)
6 | .037 ±.004 | .026(REF)
7 | .042 +.005 -.004 | .021(REF)
8 | .047 ±.005 | .016(REF)
CHEM-MILL LINE -15
CHEM-MILL LINE -13
.013 (REF)
.063(REF)
.041(-13REF)
.042(-15REF)
CHEM-MILL LINE
Z 27.00 AFT BEAM PANEL REFERENCE PLANE SEE NOTE "5
X 131.140 LOWER DECK REFERENCE PLANE SEE NOTE "5
NOTES (CONTINUED)
-SODIUM SILICATE) SHALL BE USED AND THE ... REGION SHALL BE AS SPECIFIED IN D) BELOW.
B) CHROMIC ACID ANODIZE IN ACCORDANCE WITH ... EXCEPT CONCERNING ANODIC FILM NOT AND/OR ... NOT APPLY. THE TOTAL ANODIZING TIME INCLUDING ... SHALL BE AS SPECIFIED IN CITED LINE.
C) EMITTANCE MEASUREMENTS SHALL BE TAKEN ON FLAT ... A FINISHED PART AND WITH A GARD ... THE SURFACES OF THE FINISHED PART SHALL HAVE ... HEMISPHERICAL EMITTANCE OF 0.80 ...
D) PARTS HAVING ENTIRE SURFACE AREA HAS BEEN ... MILLING BATH SHALL BE DEOXIDIZED FOR ... ANODIZED FOR 5 ½ MINUTES.
PARTS HAVING SURFACE ... BE DEOXIDIZED FOR 5 ... FOR 15 MINUTES THEN ... PARTS THAT HAVE BEEN ANODIZED ... PROPERTIES OUTSIDE THE REQUIREMENTS ... DEOXIDIZING FOR 35 ...
02/03
GRUMMAN AIRCRAFT ENGINEERING
SIZE J | CODE IDENT NO 26512 | LDW280-1
LEM
MODEL OR END ITEM
SCALE
FOR
5 4 3 2



NOTES:

1. TOLERANCE ± .125 AT TANGENCY POINTS OF CHEM-MILL LINE CORNER RADII BETWEEN TWO ETCHED SURFACES
2. NO TOOLING HOLES PERMITTED IN PARTS
3. WEIGHT OF -15 CHEM-MILL WEB AFTER FINAL TRIM (BUT BEFORE FASTENER HOLES ARE DRILLED) SHALL NOT EXCEED 6.13 POUNDS.
4. THICKNESS OF RAW MATERIAL BEFORE ETCH SEQUENCE SHALL BE .063 ± .003 THICKNESS SHALL NOT VARY BY MORE THAN .003 TOTAL OVER ENTIRE SHEET.
5. FOR BASIC JIG DATA SEE LDW280-23511
6. WEIGHT OF -13 CHEM-MILL WEB AFTER FINAL TRIM (BUT BEFORE FASTENER HOLES ARE DRILLED) SHALL NOT EXCEED 6.91 POUNDS.
7. PRIOR TO ANODIZE -13 FIN. 88 PER LSP 14-9080, DEOXIDIZE PER LSP 14-7020.
8. [illegible]
9. A) DEOXIDIZE IN ACCORDANCE WITH LSP 14-7020 EXCEPT THAT IN AREA 5 ONLY THE "HEAVY-DUTY ALUMINUM DEOXIDIZER SOLUTION" (NITRIC ACID- (CONTINUED)

LDW280-17136-13

SYMBOL	THICKNESS AFTER CHEM-MILLING	± DEPTH OF CUT
1	.013 ± .002	.050(REF)
2	.015 ± .002	.048(REF)
3	.017 +.003 -.002	.046(REF)
4	.020 ± .003	.043(REF)
5	.026 ± .004 .003	.037(REF)
6	.032 ± .004	.031(REF)
7	.041 ± .004 .004	.022(REF)
8	.045 ± .005	.018(REF)

LDW280-17136-15-17

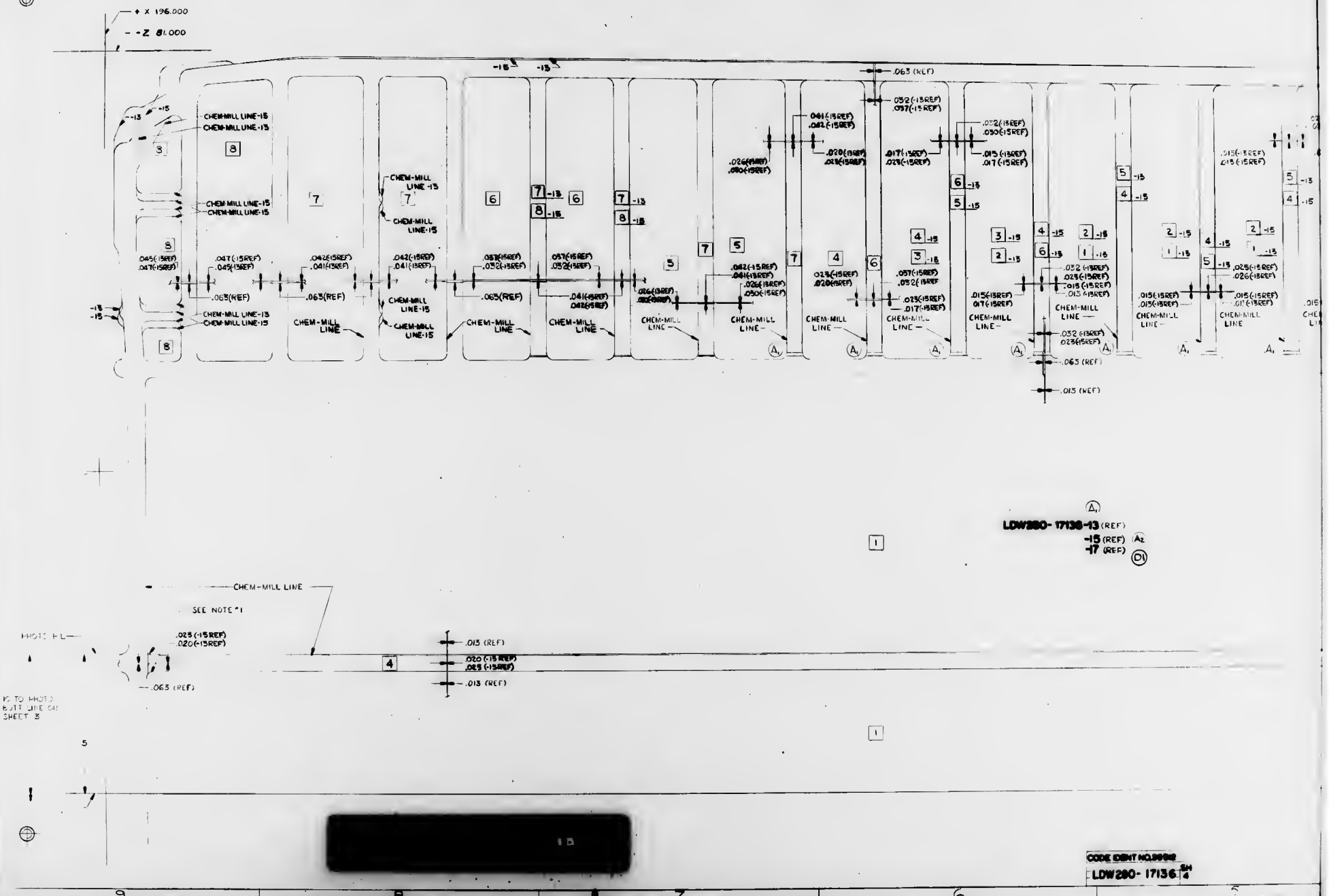
SYMBOL	THICKNESS AFTER CHEM-MILLING	± DEPTH OF CUT
1	.013 ± .002	.050(REF)
2	.015 ± .002	.048(REF)
3	.017 ± .003 .002	.046(REF)
4	.023 ± .003	.040(REF)
5	.030 ± .004 .003	.033(REF)
6	.057 ± .004	.026(REF)
7	.042 ± .005 .004	.021 (REF)
8	.047 ± .005	.016(REF)

NOTES (CONTINUED)
• SODIUM SULFATE) SHALL BE USED AND THE TOTAL IMMERSION TIME SHALL BE AS SPECIFIED IN (3) BELOW.
B) CHROMIC ACID ANODIZE IN ACCORDANCE WITH LSP14-7020 EXCEPT THAT PARTS CONTAINING ANODIC FILM MUST AND/OR CORROSION RESISTANT SHALL NOT APPLY. THE TOTAL ANODIZING CYCLE TIME, INCLUDING VOLTAGE RUN-UP TIME, SHALL BE AS SPECIFIED IN (3) BELOW.
C) MAINTENANCE MEASUREMENTS SHALL BE TAKEN ON BOTH SURFACES OF A FINISHED PART AND WITH A GNER-DUNKEL PORTABLE EMISSOMETER. THE SURFACES OF THE FINISHED PART SHALL HAVE AN AVERAGE TOTAL HEMISPHERICAL EMITTANCE OF 0.80 ± 0.10 @ 100°F.
D) PARTS WHOSE ENTIRE SURFACE AREA WAS "FLASH ETCHED" IN A CHEM-MILLING BATH SHALL BE DEOXIDIZED FOR 5 ± ½ MIN. THEN CHROMIC ACID ANODIZED FOR 36 ± ½ MINUTES.
PARTS WHOSE SURFACE CONSISTS OF CHEM-MILLED "AS ROLLED" SURFACE SHALL BE DEOXIDIZED FOR 9 ± 1 MIN. THEN CHROMIC ACID ANODIZED FOR 36 ± ½ MIN.
PARTS WHOSE ENTIRE SURFACE AREA IS IN THE "AS ROLLED" CONDITION SHALL BE DEOXIDIZED FOR 15 ± 1 MINUTES THEN CHROMIC ACID ANODIZED FOR 36 ± ½ MIN.
PARTS THAT HAVE BEEN ANODIZED (POSSESS SURFACE EMITTANCE PROPERTIES OUTSIDE THE REQUIREMENTS MAY BE RESTORED BY DEOXIDIZING FOR 35-45 MIN. & THEN CHROMIC ACID ANODIZING FOR 36 ± ½ MIN.

LEM	J 26512	LDW280-17136	D
	SCALE FULL	SHEET 5	

FOR PHOTO REPRODUCTION

LDW280-17136 D



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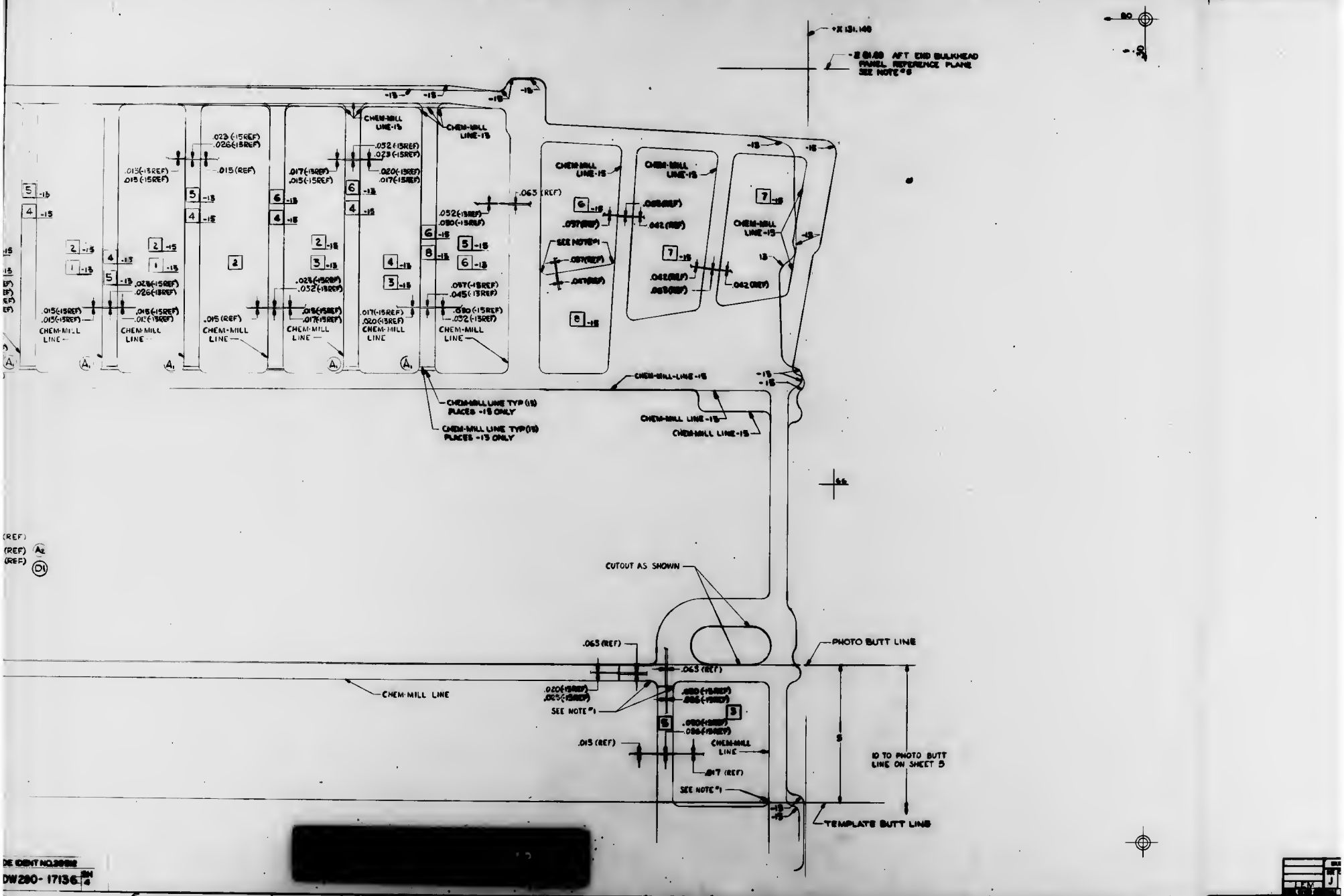
LDW280-17136 SH 4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CHEM-MILL LINE
.063 (REF)
SEE NOTE "1
CHEM-MILL LINE TYP (11) PLACES -15 ONLY
CUTOUT AS SHOWN
PHOTO BUTT LINE
.015 (REF)
.017 (REF)
TO PHOTO BUTT LINE ON SHEET 5
TEMPLATE BUTT LINE

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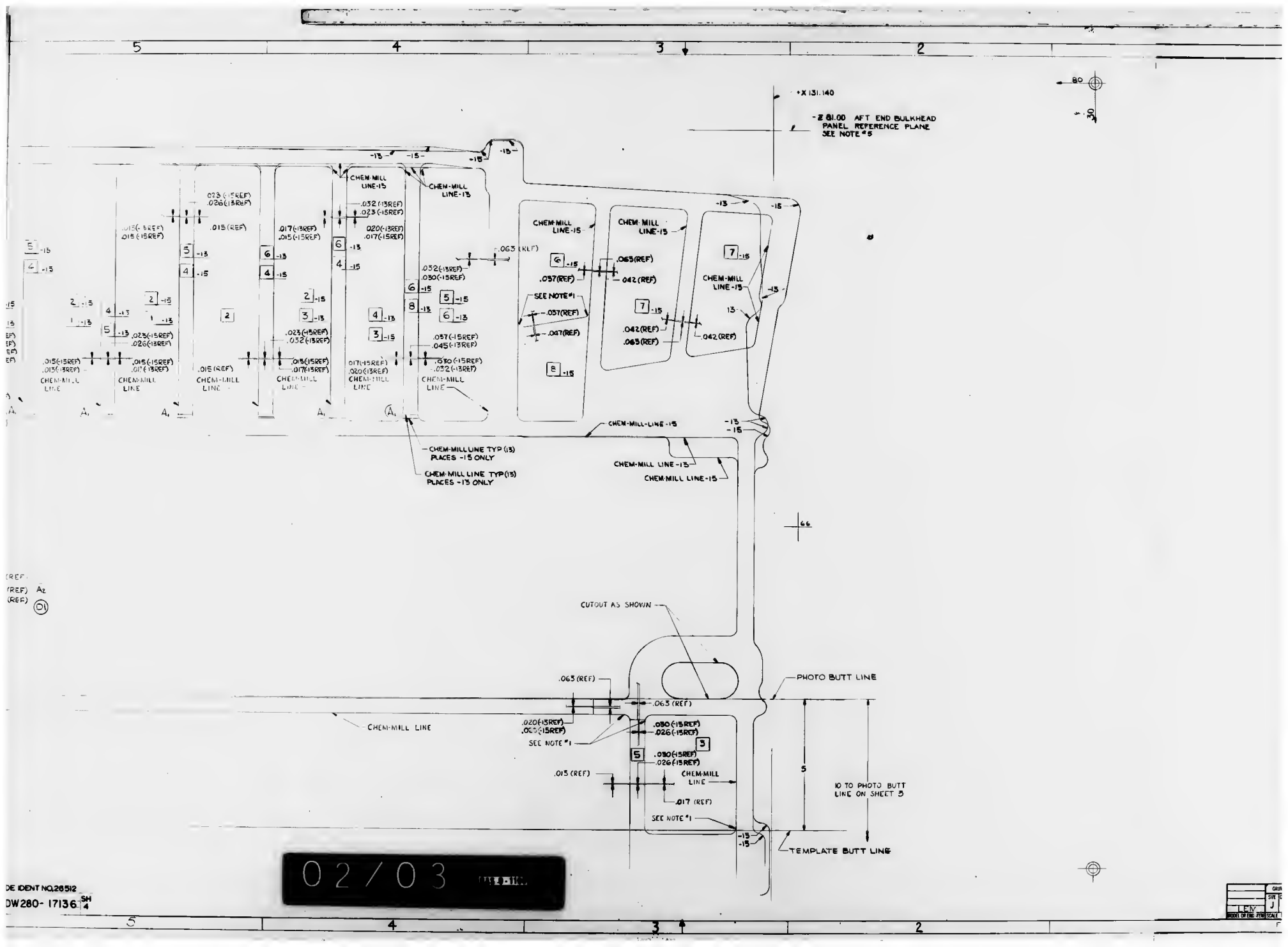

02/03

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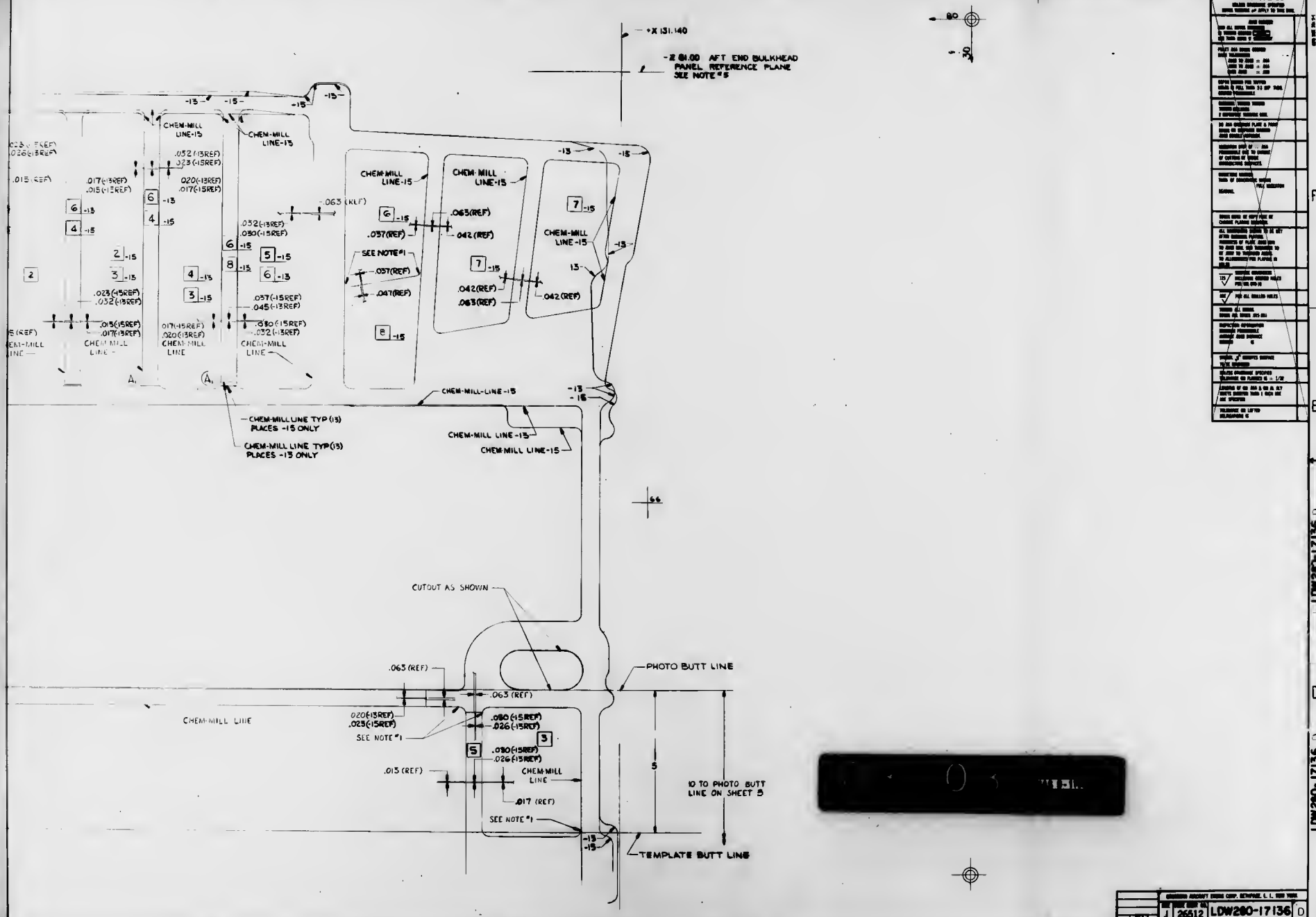
DW280- 17136 SH 4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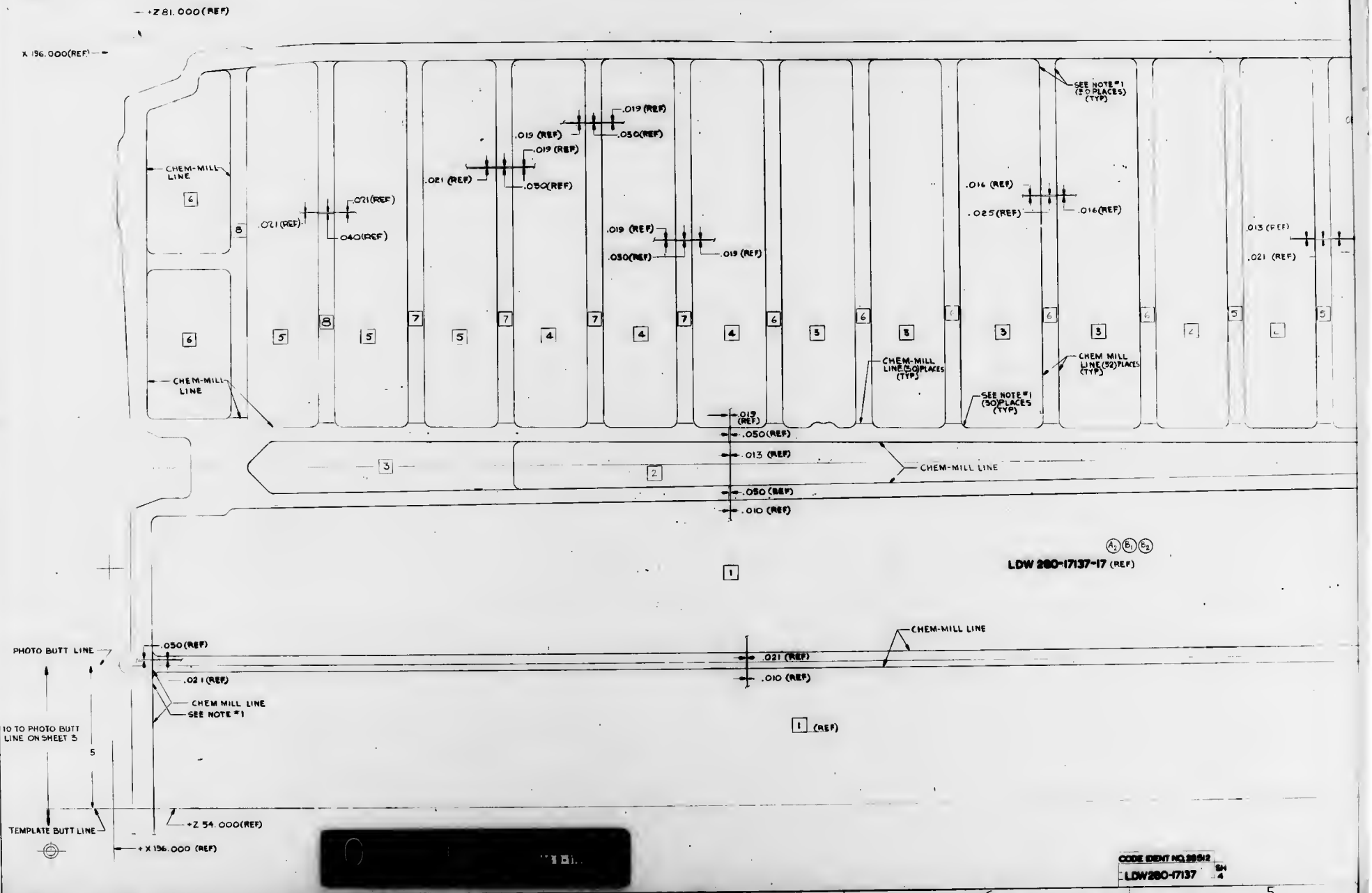
CHEM-MILL LINE-15
CHEM-MILL LINE TYP (13) PLACES -15 ONLY
CHEM-MILL LINE TYP (13) PLACES -15 ONLY
CUTOUT AS SHOWN
PHOTO BUTT LINE
TEMPLATE BUTT LINE
SEE NOTE "1
10 TO PHOTO BUTT LINE ON SHEET 5
FOR PHOTO REPRODUCTION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X 196.000 (REF)
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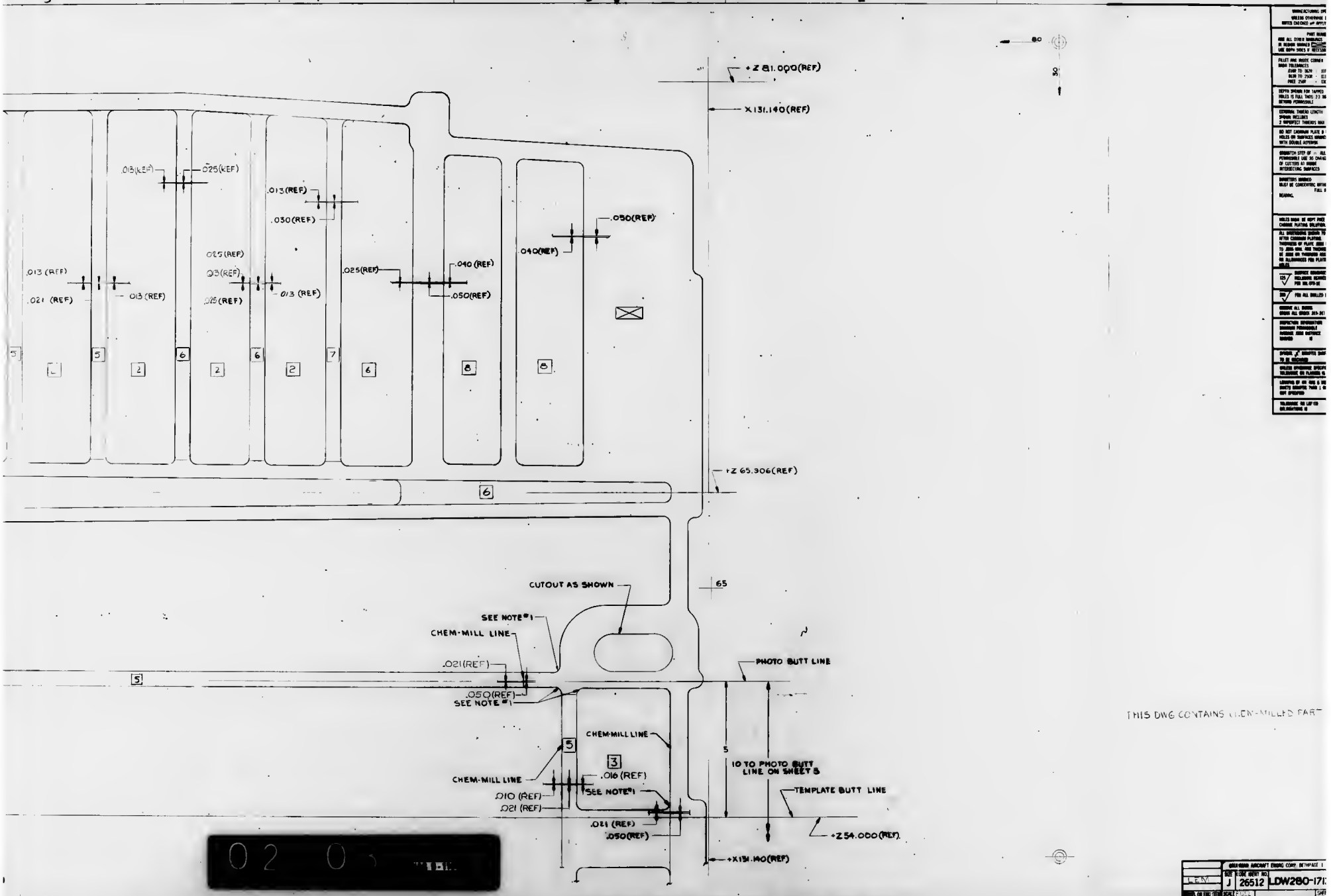
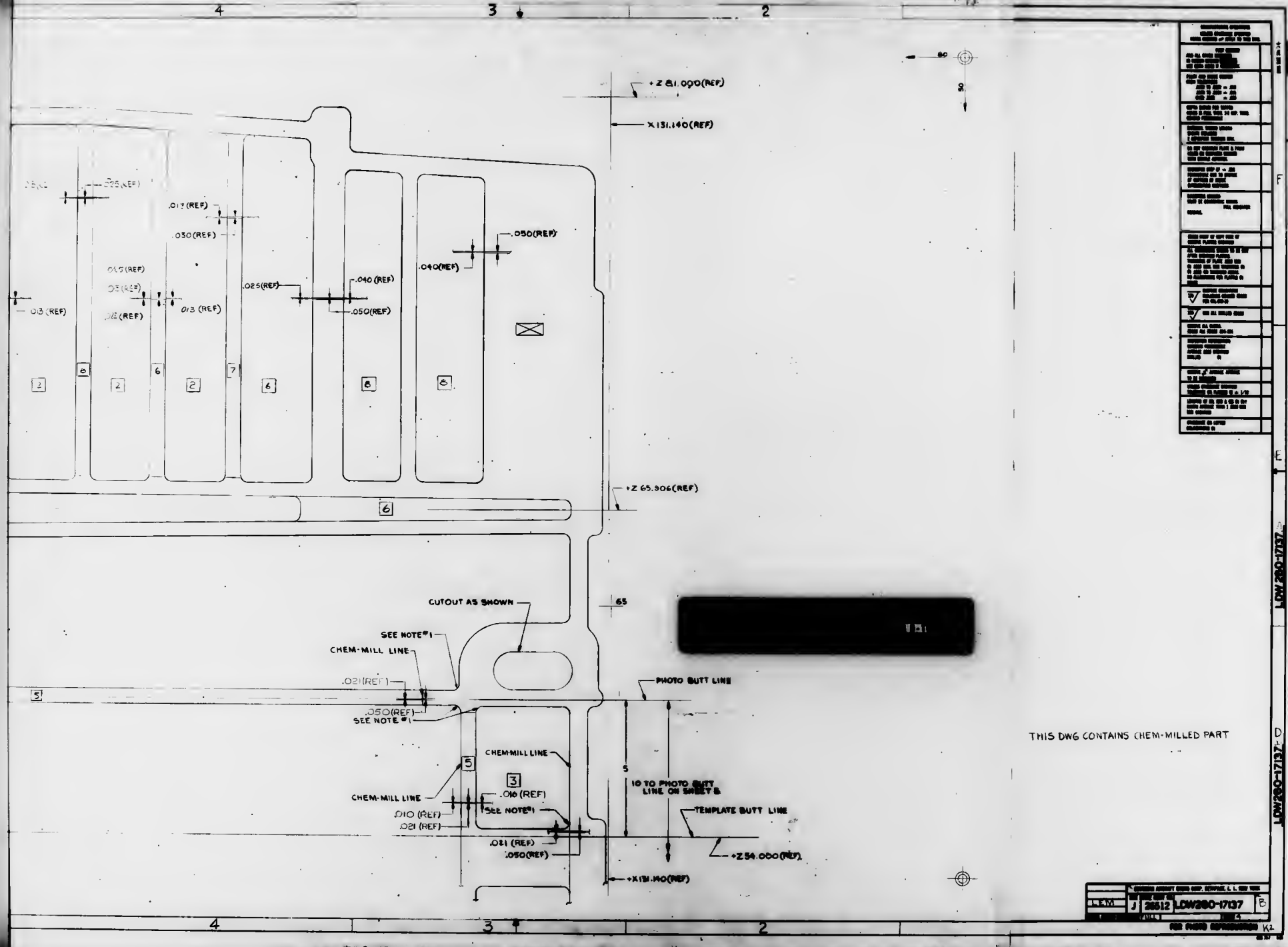
.040 (REF)
.019 (REF)
.050 (REF)
.021 (REF)
.019 (REF)
.050 (REF)
.019 (REF)
.030 (REF)
.019 (REF)
SEE NOTE #1 (50 PLACES) (TYP)
.016 (REF)
.025 (REF)
.016 (REF)
.013 (REF)
.021 (REF)
CHEM-MILL LINE (50 PLACES) (TYP)
CHEM MILL LINE (52) PLACES (TYP)
SEE NOTE #1 (50) PLACES (TYP)
.019 (REF)
.050 (REF)
.013 (REF)
.050 (REF)
.010 (REF)
CHEM-MILL LINE
LDW 280-17137-17 (REF)
PHOTO BUTT LINE
.050 (REF)
.021 (REF)
CHEM MILL LINE SEE NOTE #1
CHEM-MILL LINE
.021 (REF)
.010 (REF)
1 (REF)
10 TO PHOTO BUTT LINE ON SHEET 3
5
TEMPLATE BUTT LINE
+Z 54.000 (REF)
+X 196.000 (REF)
CODE IDENT NO. 28512
LDW280-17137
SH 4



THIS DWG CONTAINS CHEM-MILLED PART

FOR PHOTO REPRO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.013(REF)
.013(REF)
+Z 65.906(REF)
CUTOUT AS SHOWN
SEE NOTE #1
CHEM-MILL LINE
.021(REF)
.050(REF)
SEE NOTE #1
PHOTO BUTT LINE
CHEM-MILL LINE
CHEM-MILL LINE
.016(REF)
.010(REF)
.021(REF)
SEE NOTE #1
.021(REF)
.050(REF)
10 TO PHOTO BUTT LINE ON SHEET 8
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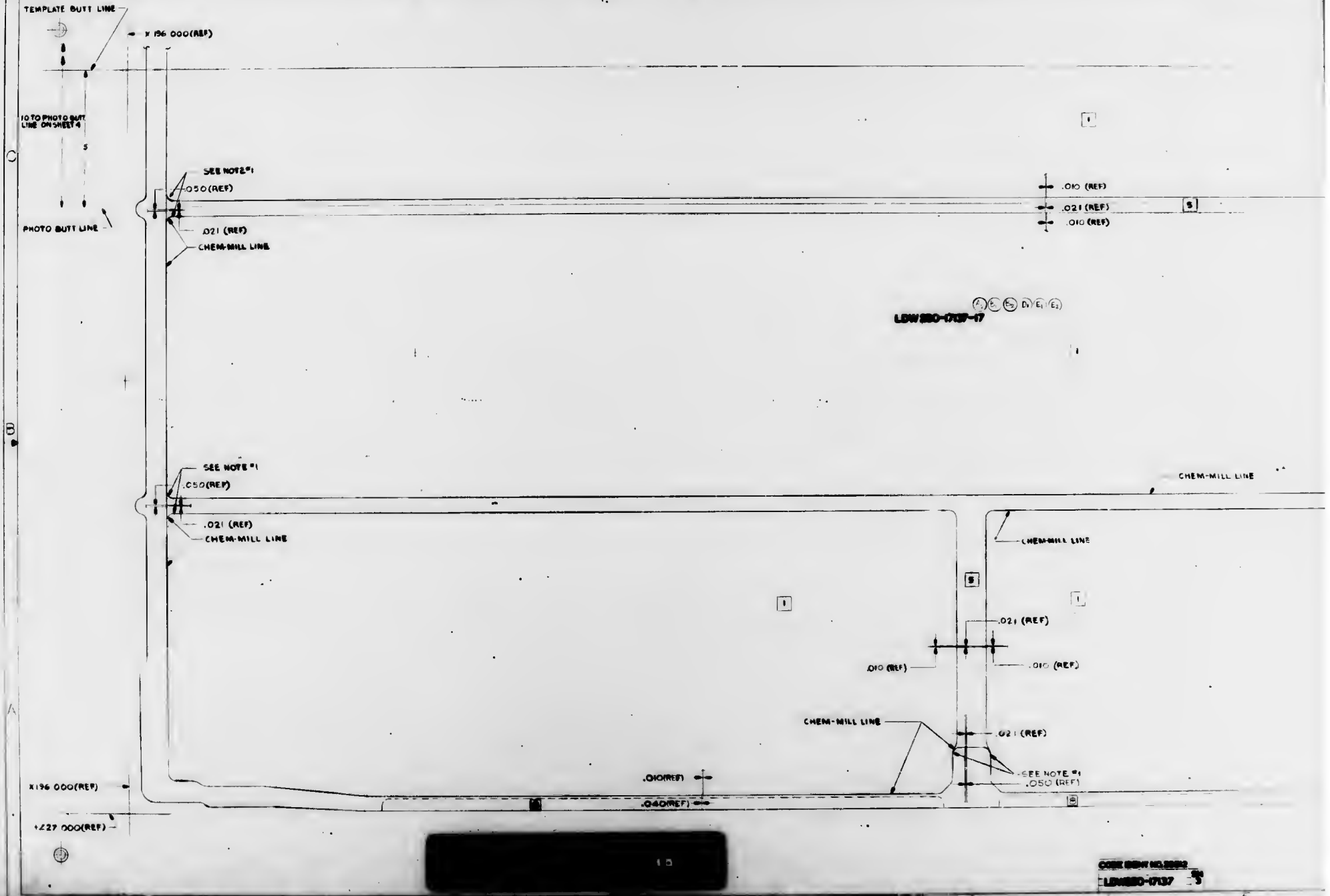
+X 131.140(REF)
THIS DWG CONTAINS CHEM-MILLED PART
J 26512 LDW280-17137 B


TEMPLATE BUTT LINE
X 196 000(REF)
10 TO PHOTO BUTT LINE ON SHEET 4
PHOTO BUTT LINE
SEE NOTE #1
.050(REF)
.021 (REF)
CHEM-MILL LINE
.010 (REF)
.021 (REF)
.010 (REF)
LDW 880-17137-17
SEE NOTE #1
.050(REF)
.021 (REF)
CHEM-MILL LINE
CHEM-MILL LINE
CHEM-MILL LINE
.021 (REF)
.010 (REF)
.010 (REF)
CHEM-MILL LINE
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SEE NOTE #1
.050 (REF)
.010(REF)
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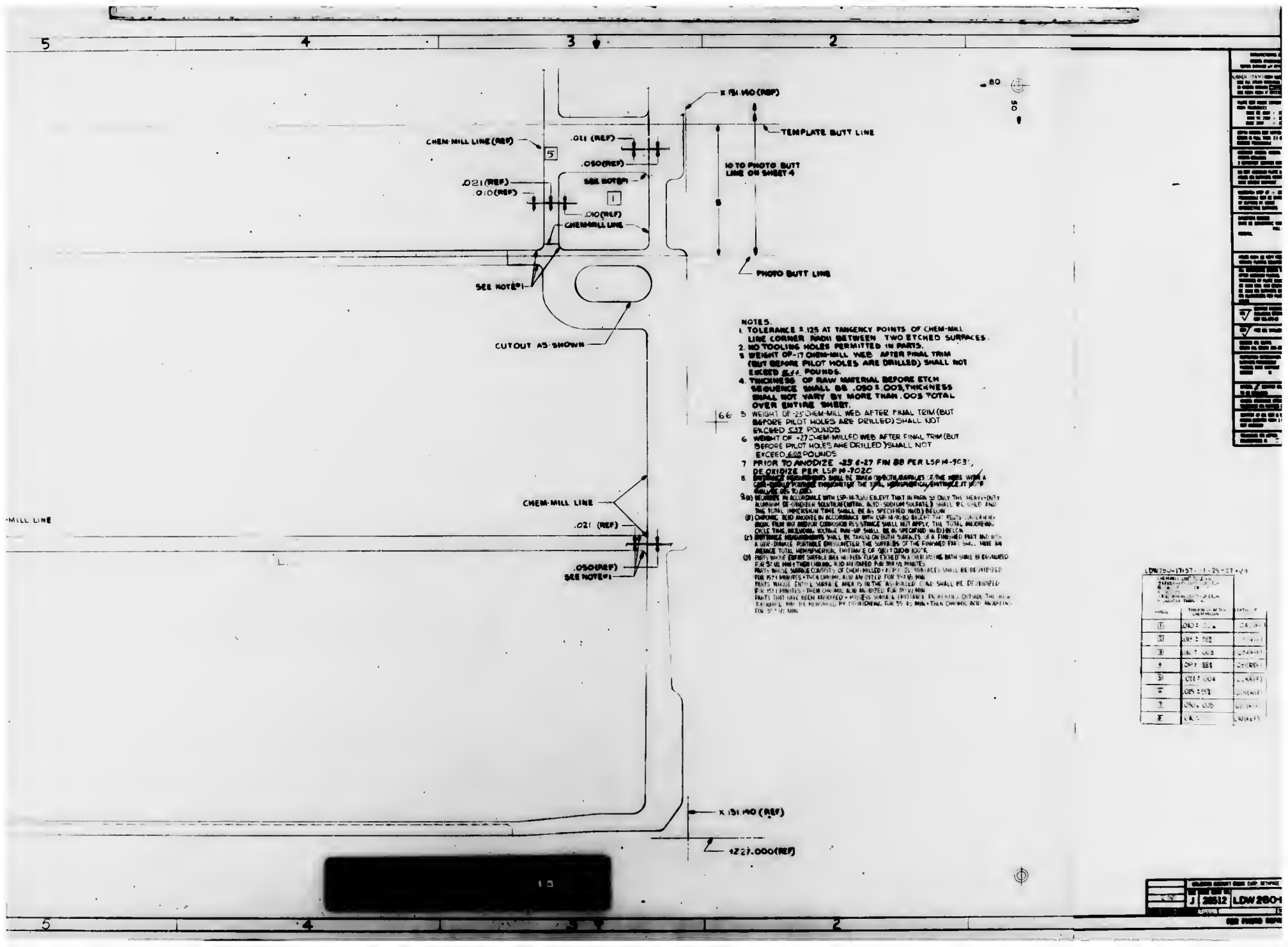
X196 000(REF)
+227 000(REF)
LDW880-17137



NOTES.

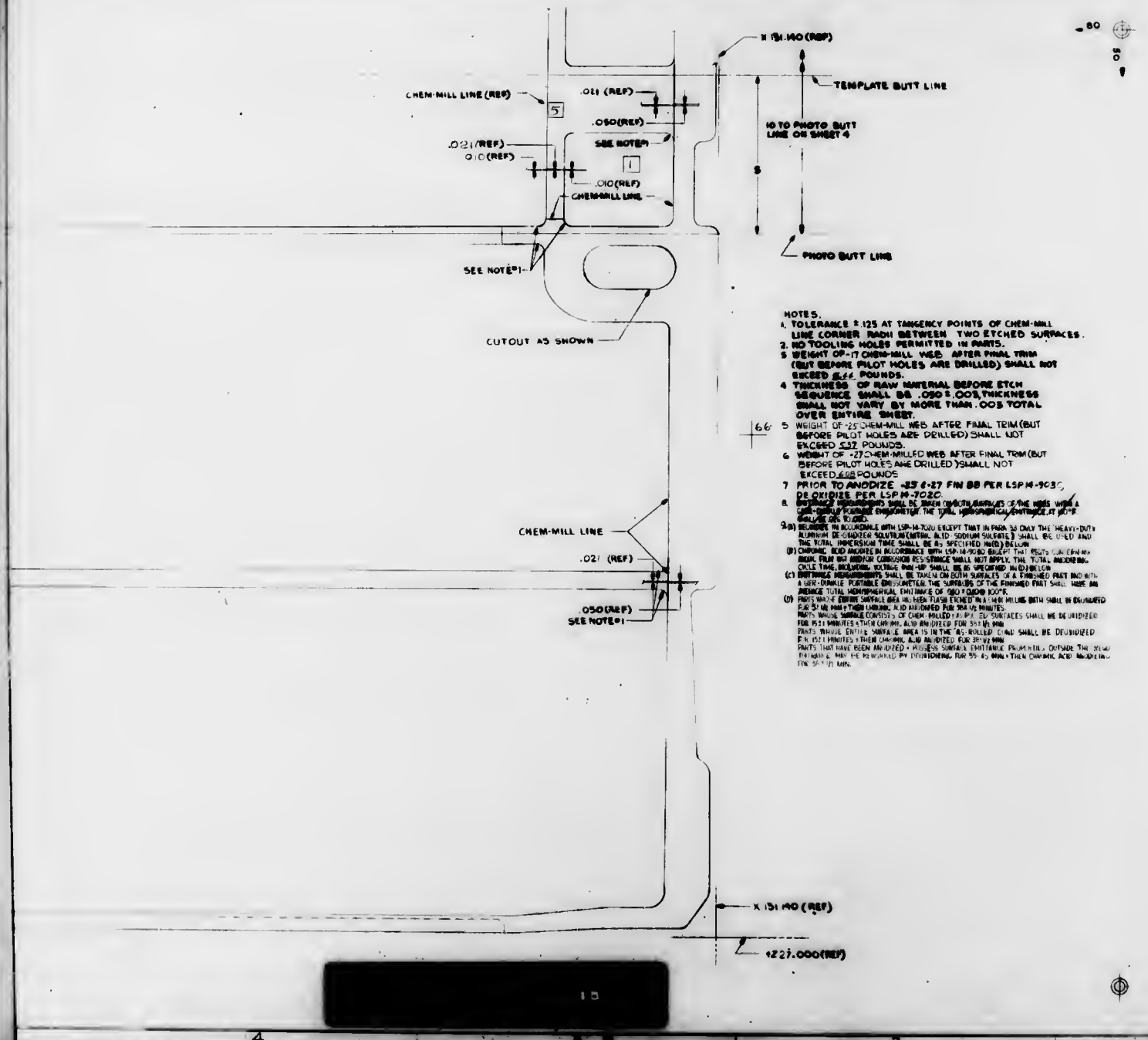
1. TOLERANCE ± .125 AT TANGENCY POINTS OF CHEM-MILL LINE CORNER RADII BETWEEN TWO ETCHED SURFACES.
2. NO TOOLING HOLES PERMITTED IN PARTS.
3. WEIGHT OF -17 CHEM-MILL WEB AFTER FINAL TRIM (BUT BEFORE PILOT HOLES ARE DRILLED) SHALL NOT EXCEED [illegible] POUNDS.
4. THICKNESS OF RAW MATERIAL BEFORE ETCH SEQUENCE SHALL BE .050 ± .003, THICKNESS SHALL NOT VARY BY MORE THAN .005 TOTAL OVER ENTIRE SHEET.
5. WEIGHT OF -25 CHEM-MILL WEB AFTER FINAL TRIM (BUT BEFORE PILOT HOLES ARE DRILLED) SHALL NOT EXCEED .537 POUNDS.
6. WEIGHT OF -27 CHEM-MILLED WEB AFTER FINAL TRIM (BUT BEFORE PILOT HOLES ARE DRILLED) SHALL NOT EXCEED .608 POUNDS.
7. PRIOR TO ANODIZE -25 & -27 PER BS PER LSP14-9031, DEOXIDIZE PER LSP14-7020.
8. [illegible]
9. (a) DEOXIDIZE IN ACCORDANCE WITH LSP-14-7020 EXCEPT THAT IN PARA 3B ONLY THE HEAVY-DUTY ALUMINUM DE-OXIDIZER SOLUTION (NITRIC ACID - SODIUM SULFATE) SHALL BE USED AND THE TOTAL IMMERSION TIME SHALL BE AS SPECIFIED IN (D) BELOW.
   (B) CHROMIC ACID ANODIZE IN ACCORDANCE WITH LSP-14-9080 EXCEPT THAT PARTS ASSEMBLY, BRUSH FILM AND/OR CORROSION RESISTANCE SHALL NOT APPLY. THE TOTAL ANODIZING CYCLE TIME, INCLUDING VOLTAGE RAMP-UP SHALL BE AS SPECIFIED IN (D) BELOW.
   (C) EMITTANCE MEASUREMENTS SHALL BE TAKEN ON BOTH SURFACES OF A FINISHED PART AND WITH A UNIT-PORTABLE PORTABLE EMISSOMETER. THE SURFACES OF THE FINISHED PART SHALL HAVE AN AVERAGE TOTAL HEMISPHERICAL EMITTANCE OF .081 ± .020 MIN.
   (D) PARTS WHOSE ENTIRE SURFACE AREA HAS BEEN EXPOSED TO A MACHINING BATH SHALL BE DEOXIDIZED FOR 35 MIN + THEN CHROMIC ACID ANODIZED FOR 35 ± 1/2 MINUTES.
   PARTS WHOSE SURFACE CONSISTS OF CHEM-MILLED + MACHINED SURFACES SHALL BE DEOXIDIZED FOR 15 ± 1 MINUTES + THEN CHROMIC ACID ANODIZED FOR 35 ± 1/2 MIN.
   PARTS WHOSE ENTIRE SURFACE AREA IS IN THE AS-ROLLED CONDITION SHALL BE DEOXIDIZED FOR 15 ± 1 MINUTES + THEN CHROMIC ACID ANODIZED FOR 35 ± 1/2 MIN.
   PARTS THAT HAVE BEEN ANODIZED + MACHINED SURFACE EMITTANCE PREVENTED OUTSIDE THE AREA EXPOSED MAY BE REANODIZED BY DEOXIDIZING FOR 35 ± 5 MIN + THEN CHROMIC ACID ANODIZED FOR 35 ± 1/2 MIN.

LDW2804-17157 - (-25 -27 -29)

SYMBOL	THICKNESS AFTER CHEM-MILLING	DEPTH OF
1	.040 ± [illegible]	.010 (REF)
2	.045 ± .002	[illegible]
3	.046 ± .003	.021 (REF)
4	.047 ± .003	.021 (REF)
5	.072 ± .004	.046 (REF)
6	.025 ± .003	.025 (REF)
7	.050 ± .005	.021 (REF)
8	[illegible]	.010 (REF)

	J	28512	LDW 2804

[redacted]

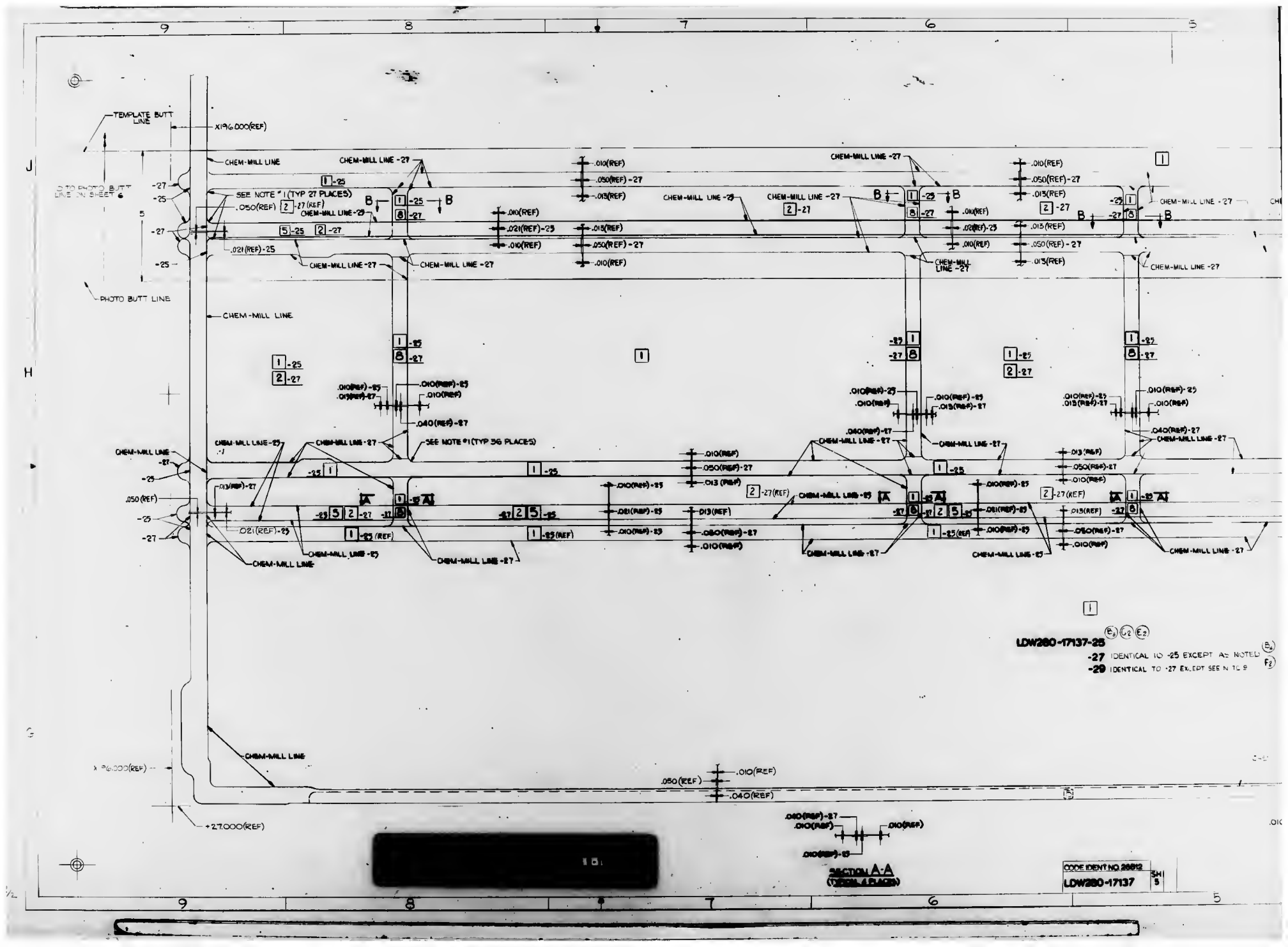


NOTES.

4. TOLERANCE ±.125 AT TANGENCY POINTS OF CHEM-MILL LINE CORNER RADII BETWEEN TWO ETCHED SURFACES.
2. NO TOOLING HOLES PERMITTED IN PARTS.
3. WEIGHT OF -17 CHEM-MILL WEB AFTER FINAL TRIM (BUT BEFORE PILOT HOLES ARE DRILLED) SHALL NOT EXCEED 6.64 POUNDS.
4. THICKNESS OF RAW MATERIAL BEFORE ETCH SEQUENCE SHALL BE .050 ±.003, THICKNESS SHALL NOT VARY BY MORE THAN .003 TOTAL OVER ENTIRE SHEET.
5. WEIGHT OF -25 CHEM-MILL WEB AFTER FINAL TRIM (BUT BEFORE PILOT HOLES ARE DRILLED) SHALL NOT EXCEED 5.37 POUNDS.
6. WEIGHT OF -27 CHEM-MILLED WEB AFTER FINAL TRIM (BUT BEFORE PILOT HOLES ARE DRILLED) SHALL NOT EXCEED 6.08 POUNDS.
7. PRIOR TO ANODIZE -25 & -27 FIN BB PER LSPM-9030, DEOXIDIZE PER LSPM-7020.
8. ~~DIFFERENCE MEASUREMENTS SHALL BE TAKEN ON BOTH SURFACES OF THE WEB WITH A CARE-CHILLE PORTABLE THICKNESS GAGE. THE TOTAL NON-DIMENSIONAL DIFFERENCE AT ANY~~ SHALL BE ZERO TO ZERO.
9. (a) SECURITY IN ACCORDANCE WITH LSP-14-7020 EXCEPT THAT IN PARA 3.6 ONLY THE "HEAVY-DUTY ALUMINUM DE-OXIDIZER SOLUTION (NITRIC ACID - SODIUM SULFATE) SHALL BE USED AND THE TOTAL IMMERSION TIME SHALL BE AS SPECIFIED HEREIN BELOW
(b) CHROMIC ACID ANODIZE IN ACCORDANCE WITH LSP-14-9080 EXCEPT THAT RESULTS OF CRACK FILM AND ANODIC CORROSION RESISTANCE SHALL NOT APPLY. THE TOTAL ANODIZING CYCLE TIME, INCLUDING VOLTAGE RAMP-UP SHALL BE AS SPECIFIED HEREIN BELOW
(c) ~~DIFFERENCE~~ MEASUREMENTS SHALL BE TAKEN ON BOTH SURFACES OF A FINISHED PART AND WITH A USER-DURABLE PORTABLE DIFFERENCE GAGE. THE SURFACES OF THE FINISHED PART SHALL HAVE AN AVERAGE TOTAL NON-DIMENSIONAL DIFFERENCE OF 0.0 TO 0.008 100%.
(d) PARTS WHOSE ENTIRE SURFACE AREA HAS BEEN FLASH ETCHED IN A CHEM MILLING BATH SHALL BE DEOXIDIZED FOR 5 MIN MIN + THEN CHROMIC ACID ANODIZED FOR 30 MIN MINUTES.
PARTS WHOSE SURFACE CONSISTS OF CHEM-MILLED AND MECHANICALLY SURFACES SHALL BE DEOXIDIZED FOR 15 MINUTES + THEN CHROMIC ACID ANODIZED FOR 30 MIN MIN
PARTS WHOSE ENTIRE SURFACE AREA IS IN THE "AS-ROLLED" COND SHALL BE DEOXIDIZED FOR 15 MINUTES + THEN CHROMIC ACID ANODIZED FOR 30 MIN MIN
PARTS THAT HAVE BEEN ANODIZED + HOLDERS SURFACE FINISHANCE FROM MILL, OUTSIDE THE SEALED FAYING AREA MAY BE REANODIZED BY DEMETALLING FOR 30 TO 45 MIN + THEN CHROMIC ACID ANODIZING FOR 30 TO 45 MIN.

LDW250-17197-17,-25-27,-29

SYMBOL	THICKNESS OF THE CHEM-MILLING	DEPTH OF CUT
[5]	.010 ± .004	.010 (REF)
[2]	.005 ± .003	.021(REF)
[3]	.010 ± .003	.050(REF)
[4]	.009 ± .003	.050(REF)
[10]	.004 ± .004	.021(REF)
[6]	.005 ± .003	.075(REF)
[7]	.050 ± .005	.021(REF)
[8]	.040 ± .005	.010(REF)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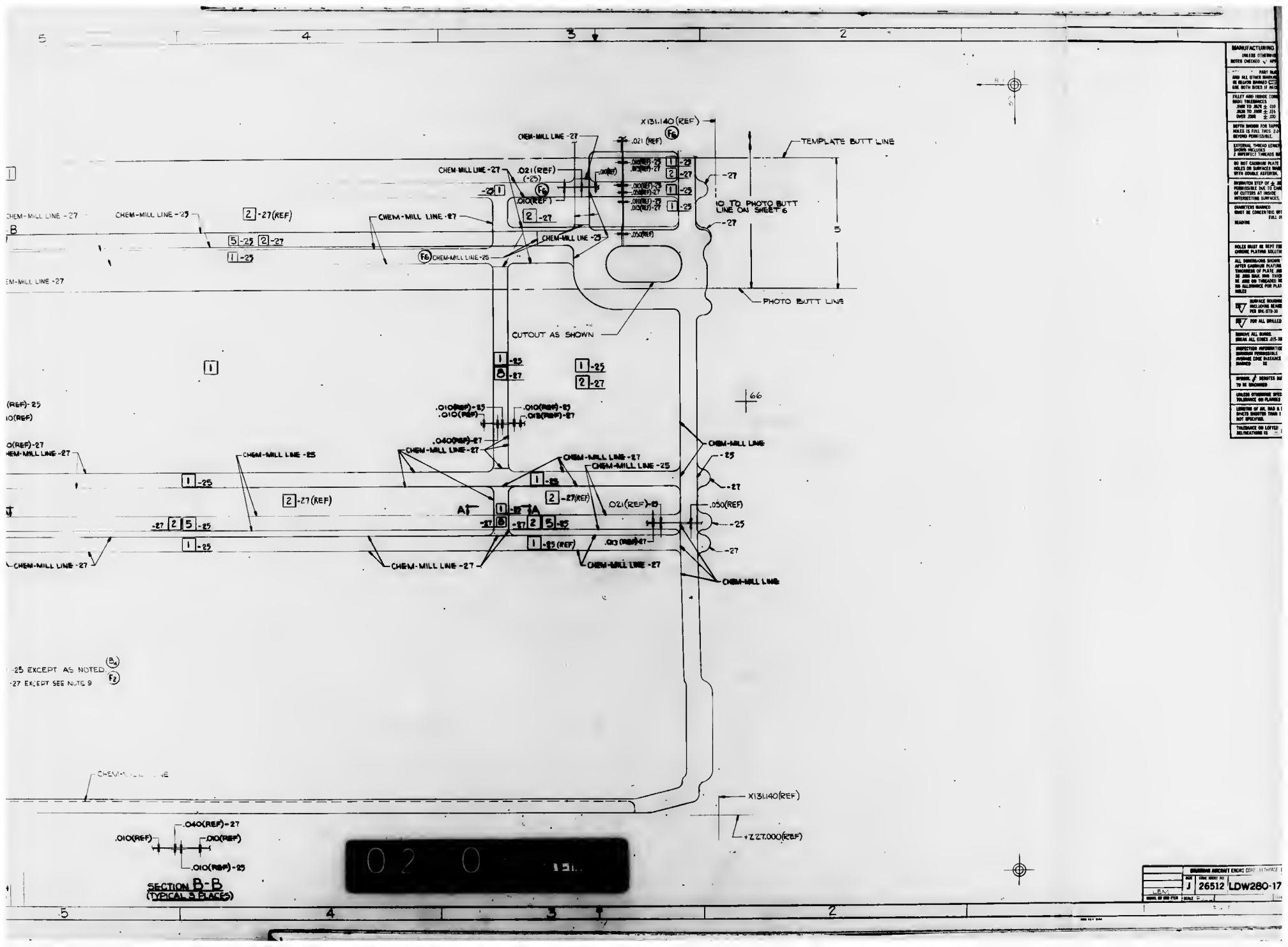
X196.000(REF)
CHEM-MILL LINE
CHEM-MILL LINE -27
SEE NOTE "1"(TYP 27 PLACES)
.050(REF)
.021(REF)-25
PHOTO BUTT LINE
.010(REF)
.050(REF)-27
.013(REF)
.040(REF)-27
SEE NOTE "1"(TYP 36 PLACES)
.013(REF)-27
.021(REF)-25
X 96.000(REF)
+27.000(REF)
SECTION A-A
(TYPICAL 4 PLACES)
LDW280-17137-25
-27 IDENTICAL TO -25 EXCEPT AS NOTED
-29 IDENTICAL TO -27 EXCEPT SEE NOTE 9
CODE IDENT NO. 20012
LDW280-17137
SH 5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TEMPLATE BUTT LINE
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.021(REF)
(-25)
.010(REF)
TO PHOTO BUTT LINE ON SHEET 6
CHEM-MILL LINE -27
CHEM-MILL LINE -25
CHEM-MILL LINE -27
CHEM-MILL LINE -25
.050(REF)
PHOTO BUTT LINE
CUTOUT AS SHOWN
.010(REF)-25
.010(REF)
.010(REF)-25
.013(REF)-27
.040(REF)-27
CHEM-MILL LINE -27
CHEM-MILL LINE -25
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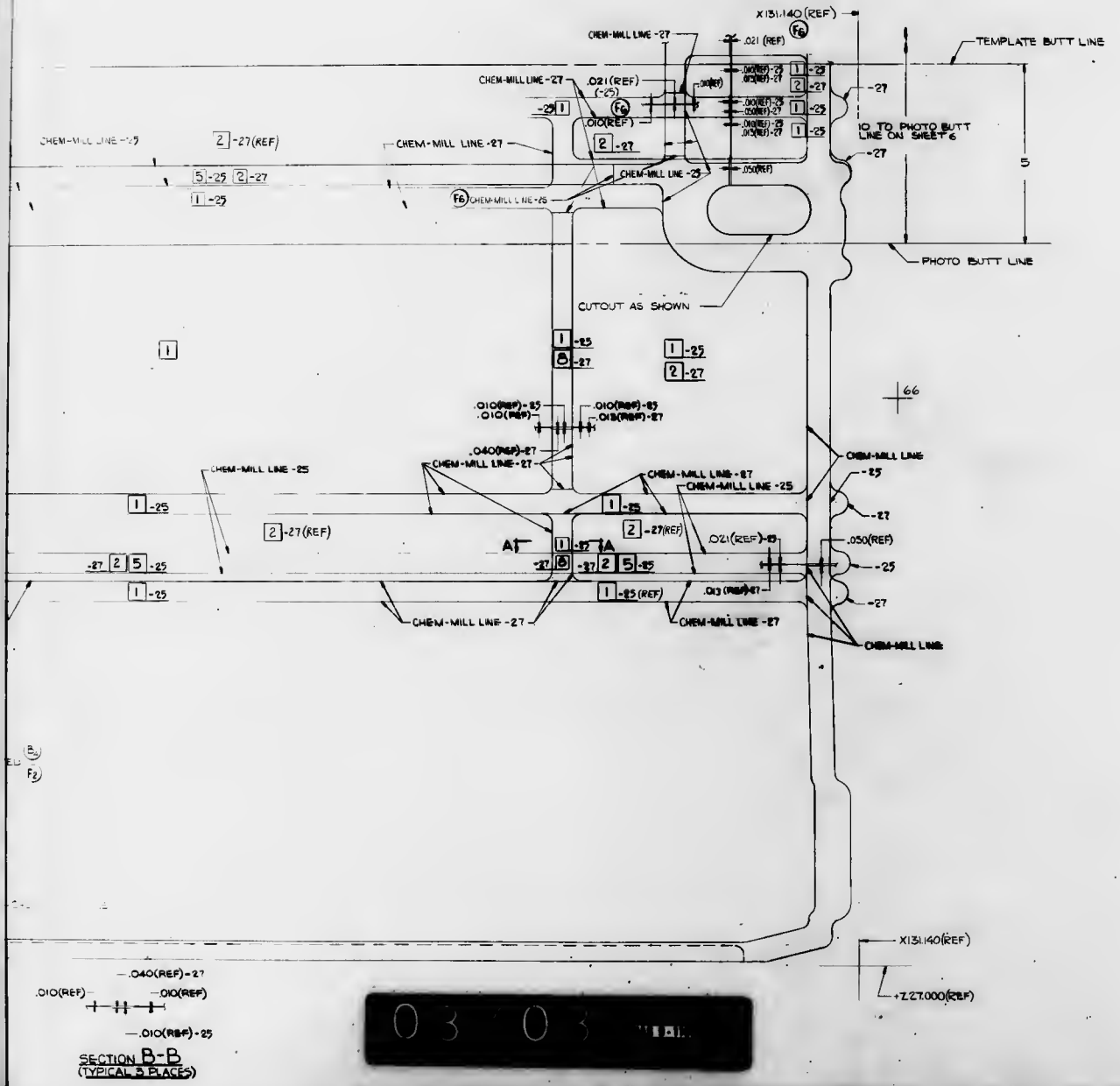


MANUFACTURING OPERATIONS

UNLESS OTHERWISE SPECIFIED
NOTES BELOW √ APPLY TO THIS DWG.

DASH STAMP PART NUMBER AND ALL OTHER MARKINGS OF SIMILAR NATURE PER MIL-STD-130

FILLET AND RADIUS UNLESS OTHERWISE SPECIFIED
.XXX TOLERANCE
.XXX TO .XXX ± .010
.XXX TO .XXX ± .005
OVER .XXX ± .002

DEPTH UNDER FULL FILLET RADIUS IS FULL THRU, 2.5 MIN THRU, UNDER FILLETS.

EXTERNAL THREAD LENGTH UNDER RELIEF 2 DIAMETERS MINIMUM

NO DIM. UNDERSIDE PLATE & PAINT SHALL BE MASKED UNDER WITH DOUBLE EXPOSURE.

UNDERSIDE STEP OF ± .005 PERMISSIBLE BUT TO REMOVE BY EXPOSURE AT INSIDE INTERSECTING SURFACES.

MACHINED SURFACE MUST BE CONCENTRIC WITHIN FULL INDICATOR READING

SHIELD SHALL BE KEPT FREE OF BONDED PLATING SOLUTION.

ALL DIMENSIONS SHOWN TO BE MET AFTER CADMIUM PLATING. THICKNESS OF PLATE .0005 MAX TO .0015 MAX, AND THICKNESS TO BE .0005 TO THICKER AREAS. NO ALLOWANCE FOR PLATING IS MADE

REVISED DRAWING INCORPORATE REVISED SHIELD DWG 685-070-10

USE ALL SHIELDED SHIELD

REVISED ALL SHOWN. BREAK ALL SHIELD 685-004

INSPECTION INFORMATION ENGINEER PERMISSIBLE GUIDANCE THRU DIRECTIONS REQUIRED

SHOWN √ INDICATES SURFACE TO BE MACHINED

UNLESS OTHERWISE SPECIFIED THICKNESS ON FLANGES IS ± 1/32

LENGTHS OF ALL DIM. & DIR IS ALT UNITS SHOWN THUS 1 INCH ARE ONE DIMENSION.

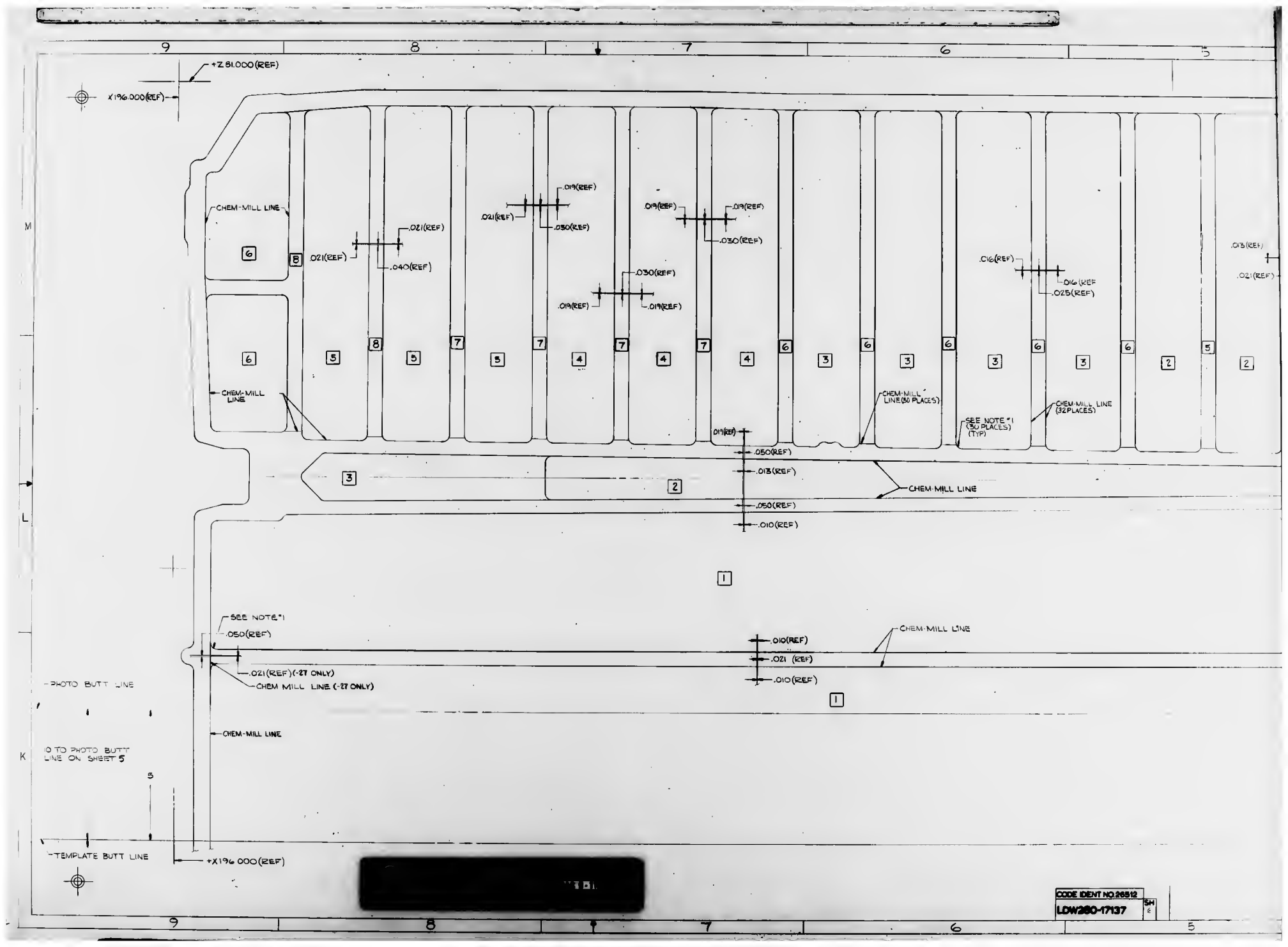
TOLERANCE ON LISTED DIMENSIONS IS ± 1/2

LEM	GRUMMAN AIRCRAFT ENGR. CORP., BETHPAGE, L.I., NEW YORK		
	SIZE	CAGE CODE NO.	DWG. NO.
	J	26512	LDW280-17137
	SCALE FULL	SHEET 5	

LDW280-17137 F

FOR PHOTO REPRODUCTION

K2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.040(REF)
.021(REF)
.050(REF)
.019(REF)
.030(REF)
.019(REF)
.030(REF)
.019(REF)
.016(REF)
.025(REF)
.013(REF)
.021(REF)
CHEM-MILL LINE
CHEM-MILL LINE (50 PLACES)
SEE NOTE "1" (50 PLACES) (TYP)
CHEM-MILL LINE (32 PLACES)
.019(REF)
.050(REF)
.013(REF)
.050(REF)
.010(REF)
CHEM-MILL LINE
SEE NOTE "1"
.050(REF)
.021(REF) (-27 ONLY)
CHEM MILL LINE (-27 ONLY)
.010(REF)
.021 (REF)
.010(REF)
CHEM-MILL LINE
PHOTO BUTT LINE
CHEM-MILL LINE
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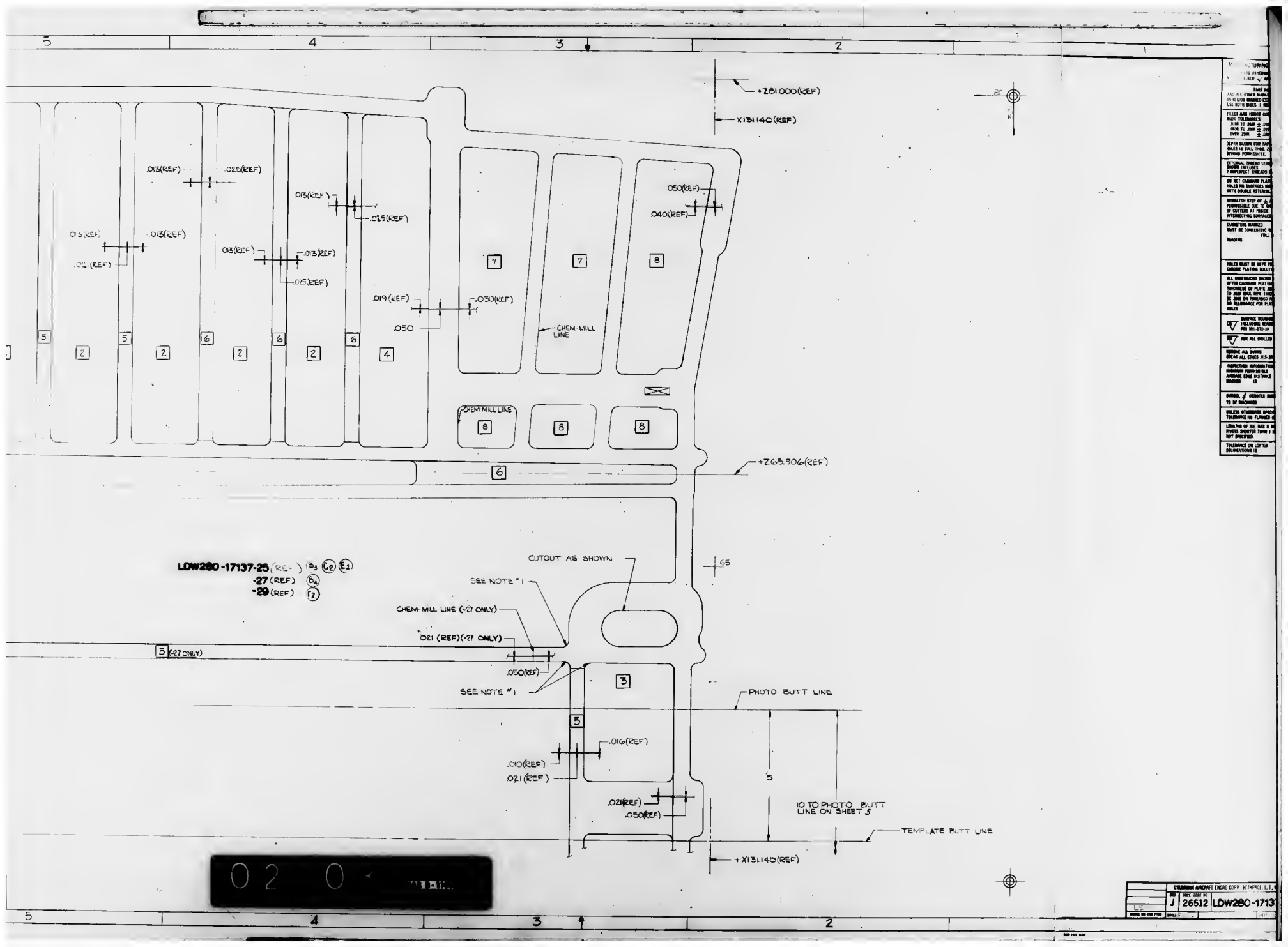
TEMPLATE BUTT LINE
+X 196.000 (REF)
CODE IDENT NO. 26512
LDW280-17137
SH 6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.013(REF)
.013(REF)
.025(REF)
.050(REF)
.040(REF)
.019(REF)
.030(REF)
.050
CHEM-MILL LINE
CHEM-MILL LINE
+Z65.906(REF)
LDW280-17137-25 (REF) (B3) (C2) (E2)
-27 (REF) (B4)
-29 (REF) (F2)
CUTOUT AS SHOWN
SEE NOTE "1
CHEM-MILL LINE (-27 ONLY)
.021 (REF)(-27 ONLY)
5 (-27 ONLY)
.050(REF)
SEE NOTE "1
PHOTO BUTT LINE
.016(REF)
.010(REF)
.021(REF)
.021(REF)
.050(REF)
5
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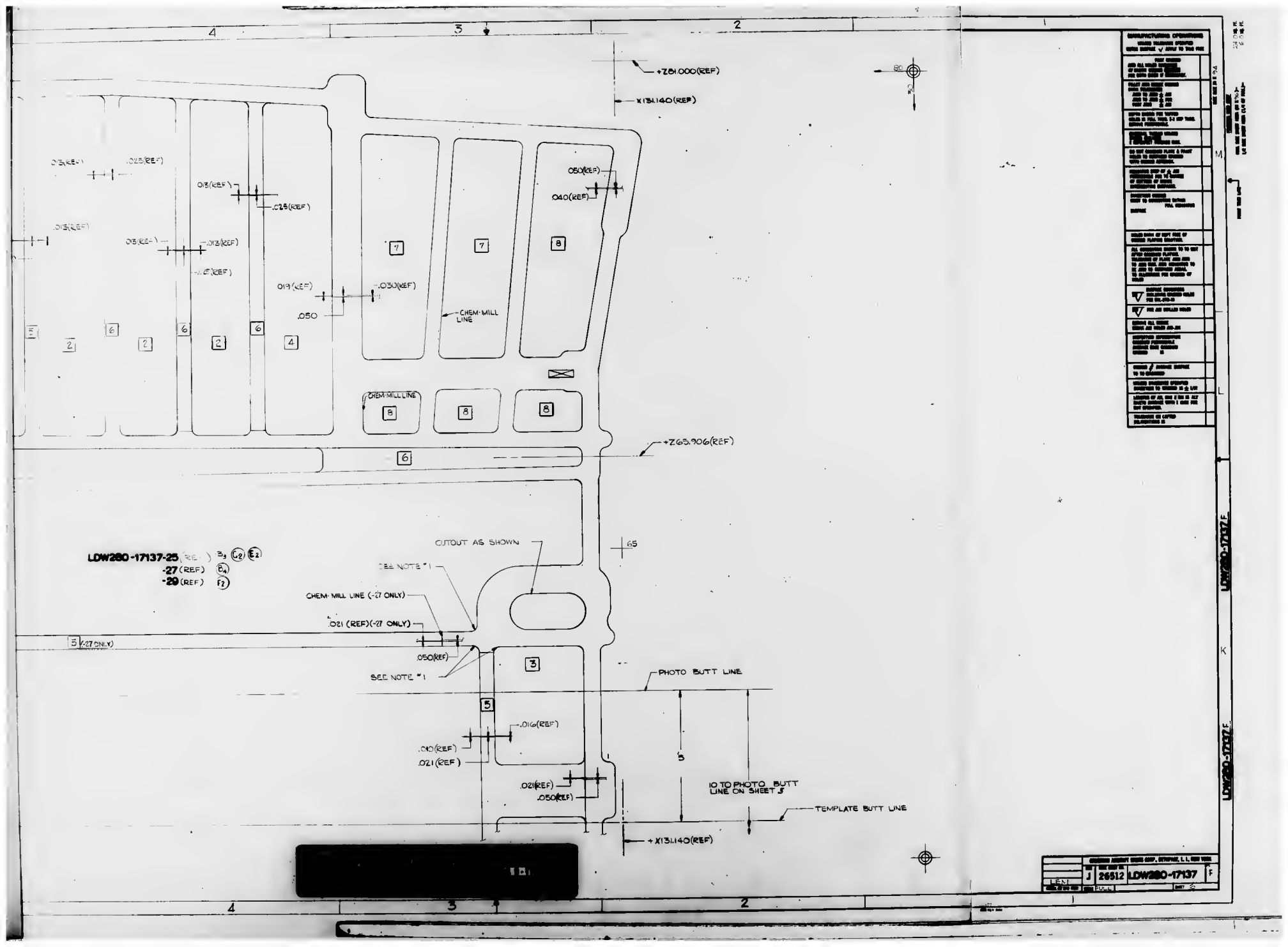
TEMPLATE BUTT LINE
+X131.140(REF)
J 26512 LDW280-1713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.050
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.040(REF)
CHEM-MILL LINE
CHEM-MILL LINE
+Z65.906(REF)
LDW280-17137-25 (REF.) B3 C2 E2
-27 (REF.) E4
-29 (REF.) F2
CUTOUT AS SHOWN
SEE NOTE "1
CHEM-MILL LINE (-27 ONLY)
.021 (REF)(-27 ONLY)
5 (-27 ONLY)
.050(REF)
SEE NOTE "1
PHOTO BUTT LINE
.016(REF)
.010(REF)
.021(REF)
.021(REF)
.050(REF)
10 TO PHOTO BUTT LINE ON SHEET 5
TEMPLATE BUTT LINE
+X131.140(REF)
J 26512 LDW280-17137 F
LDW280-17137E
LDW280-17137E

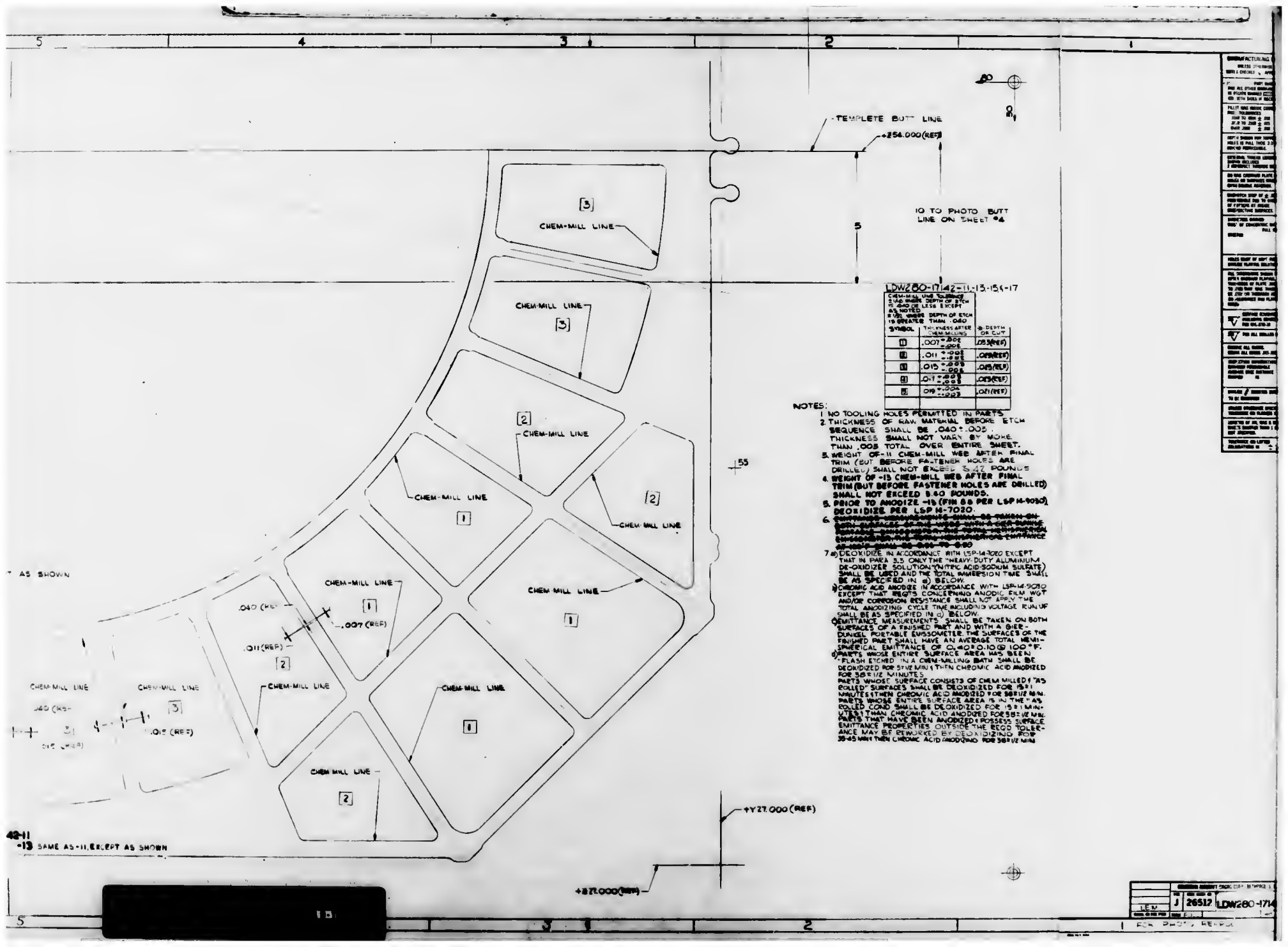
(A6) LDW280-17142-15 SAME AS -11 EXCEPT FOR NOTE 7 AND AS NOTED

(A4) -17 SAME AS -15 EXCEPT FOR NOTE 7 & AS NOTED

LDW280-17142-11 -13 SAME AS -11 EXCEPT FOR

CODE IDENT NO 22512

LDW280-17142 SH 3



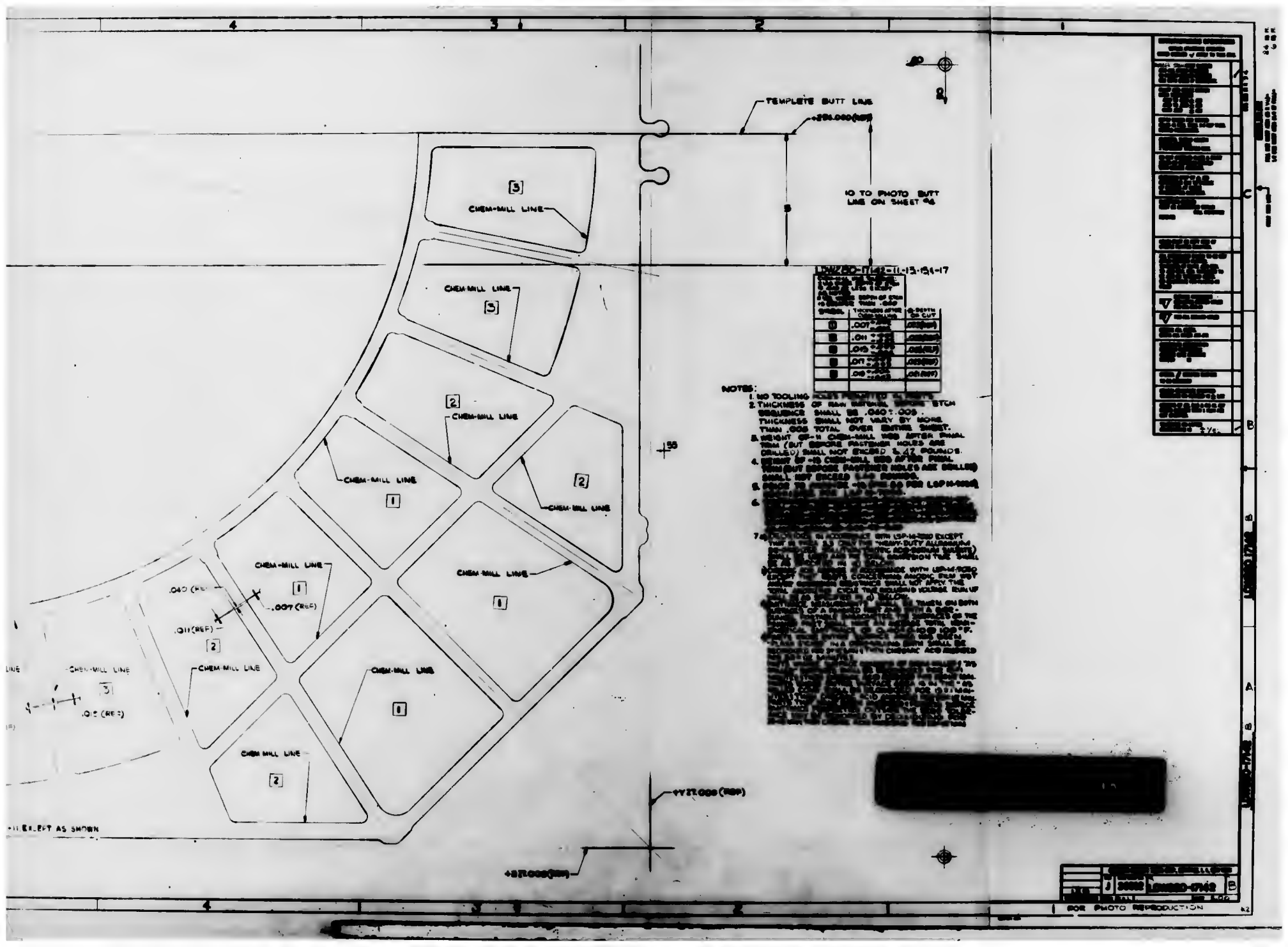
LDW280-1714Z-11,-13,-15,-17

SYMBOL	THICKNESS AFTER CHEM MILLING	% DEPTH OF CUT
[1]	.007 +.002 -.001	.053 (REF)
[2]	.011 +.002 -.001	.049 (REF)
[3]	.015 +.002 -.001	.045 (REF)
[4]	.017 +.002 -.001	.053 (REF)
[5]	.019 +.004 -.002	.021 (REF)

NOTES:
1. NO TOOLING HOLES PERMITTED IN PARTS
2. THICKNESS OF RAW MATERIAL BEFORE ETCH SEQUENCE SHALL BE .040 ±.003. THICKNESS SHALL NOT VARY BY MORE THAN .008 TOTAL OVER ENTIRE SHEET.
3. WEIGHT OF -11 CHEM-MILL WEB AFTER FINAL TRIM (BUT BEFORE FASTENER HOLES ARE DRILLED) SHALL NOT EXCEED 5.47 POUNDS
4. WEIGHT OF -13 CHEM-MILL WEB AFTER FINAL TRIM (BUT BEFORE FASTENER HOLES ARE DRILLED) SHALL NOT EXCEED 8.60 POUNDS.
5. PRIOR TO ANODIZE -13 (FIN 88 PER LSP M-9050) DEOXIDIZE PER LSP M-7020.
6. [redacted]
7. a) DEOXIDIZE IN ACCORDANCE WITH LSP-M-7020 EXCEPT THAT IN PARA 3.3 ONLY THE "HEAVY-DUTY ALUMINUM DE-OXIDIZER SOLUTION-(NITRIC ACID-SODIUM SULFATE) SHALL BE USED AND THE TOTAL IMMERSION TIME SHALL BE AS SPECIFIED IN c) BELOW.
b) CHROMIC ACID ANODIZE IN ACCORDANCE WITH LSP-M-9050 EXCEPT THAT REQTS CONCERNING ANODIC FILM WGT AND/OR CORROSION RESISTANCE SHALL NOT APPLY. THE TOTAL ANODIZING CYCLE TIME INCLUDING VOLTAGE RUN UP SHALL BE AS SPECIFIED IN c) BELOW.
c) EMITTANCE MEASUREMENTS SHALL BE TAKEN ON BOTH SURFACES OF A FINISHED PART AND WITH A GIER-DUNKEL PORTABLE EMISSOMETER. THE SURFACES OF THE FINISHED PART SHALL HAVE AN AVERAGE TOTAL HEMISPHERICAL EMITTANCE OF 0.40 ± 0.10 @ 100°F.
d) PARTS WHOSE ENTIRE SURFACE AREA HAS BEEN FLASH ETCHED IN A CHEM-MILLING BATH SHALL BE DEOXIDIZED FOR 5 1/2 MIN & THEN CHROMIC ACID ANODIZED FOR 38 1/2 MINUTES.
PARTS WHOSE SURFACE CONSISTS OF CHEM MILLED & "AS ROLLED" SURFACES, SHALL BE DEOXIDIZED FOR 15 ± 1 MINUTES & THEN CHROMIC ACID ANODIZED FOR 38 1/2 MIN.
PARTS WHOSE ENTIRE SURFACE AREA IS IN THE "AS ROLLED" COND SHALL BE DEOXIDIZED FOR 15 ± 1 MINUTES & THEN CHROMIC ACID ANODIZED FOR 38 1/2 MIN.
PARTS THAT HAVE BEEN ANODIZED & POSSESS SURFACE EMITTANCE PROPERTIES OUTSIDE THE REQD TOLERANCE MAY BE REWORKED BY DEOXIDIZING FOR 35-45 MIN & THEN CHROMIC ACID ANODIZING FOR 38 1/2 MIN

[redacted]

LEM	J	26512	LDW280-1714


TEMPLATE BUTT LINE
10 TO PHOTO BUTT LINE ON SHEET #6
CHEM-MILL LINE
[3]
[2]
[1]
.040 (REF)
.007 (REF)
.011 (REF)
.015 (REF)
NOTES:
1. NO TOOLING
2. THICKNESS OF RAW MATERIAL
SEQUENCE SHALL BE .050 ± .005
THICKNESS SHALL NOT VARY BY MORE
THAN .005 TOTAL OVER ENTIRE SHEET.
3. WEIGHT OF #9 CHEM-MILL MED AFTER FINAL
TRIM (BUT BEFORE FASTENER HOLES ARE
DRILLED) SHALL NOT EXCEED 5.47 POUNDS.
4. WEIGHT OF #9 CHEM-MILL MED AFTER FINAL
TRIM (BUT BEFORE FASTENER HOLES ARE DRILLED)
SHALL NOT EXCEED 5.46 POUNDS.
5. PRIOR TO APPLICATION OF #9 PER
6.
7.
8.
9.
10.
11.
12.
13.
14.
15.
16.
17.
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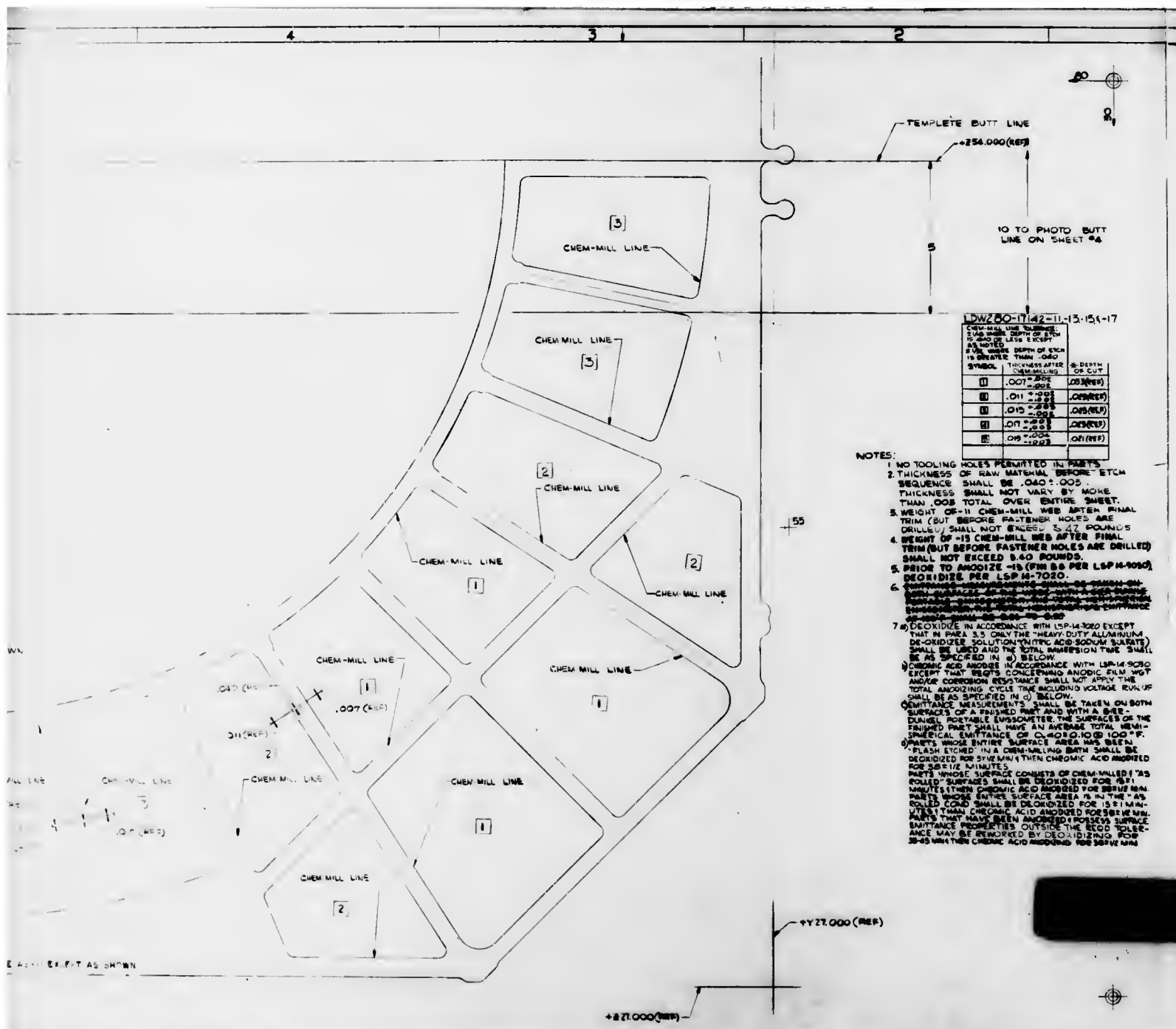


LDW280-17142-11-13-15-17

CHEM-MILL LINE TOLERANCE: ±.140 WHERE DEPTH OF ETCH IS .400 OR LESS EXCEPT AS NOTED. ±.170 WHERE DEPTH OF ETCH IS GREATER THAN .400

SYMBOL	THICKNESS AFTER CHEM-MILLING	DEPTH OF CUT
[1]	.007 +.002 −.002	.093(REF)
[2]	.011 +.002 −.002	.089(REF)
[3]	.015 +.002 −.002	.085(REF)
[4]	.017 +.002 −.002	.083(REF)
[5]	.019 +.002 −.002	.081(REF)

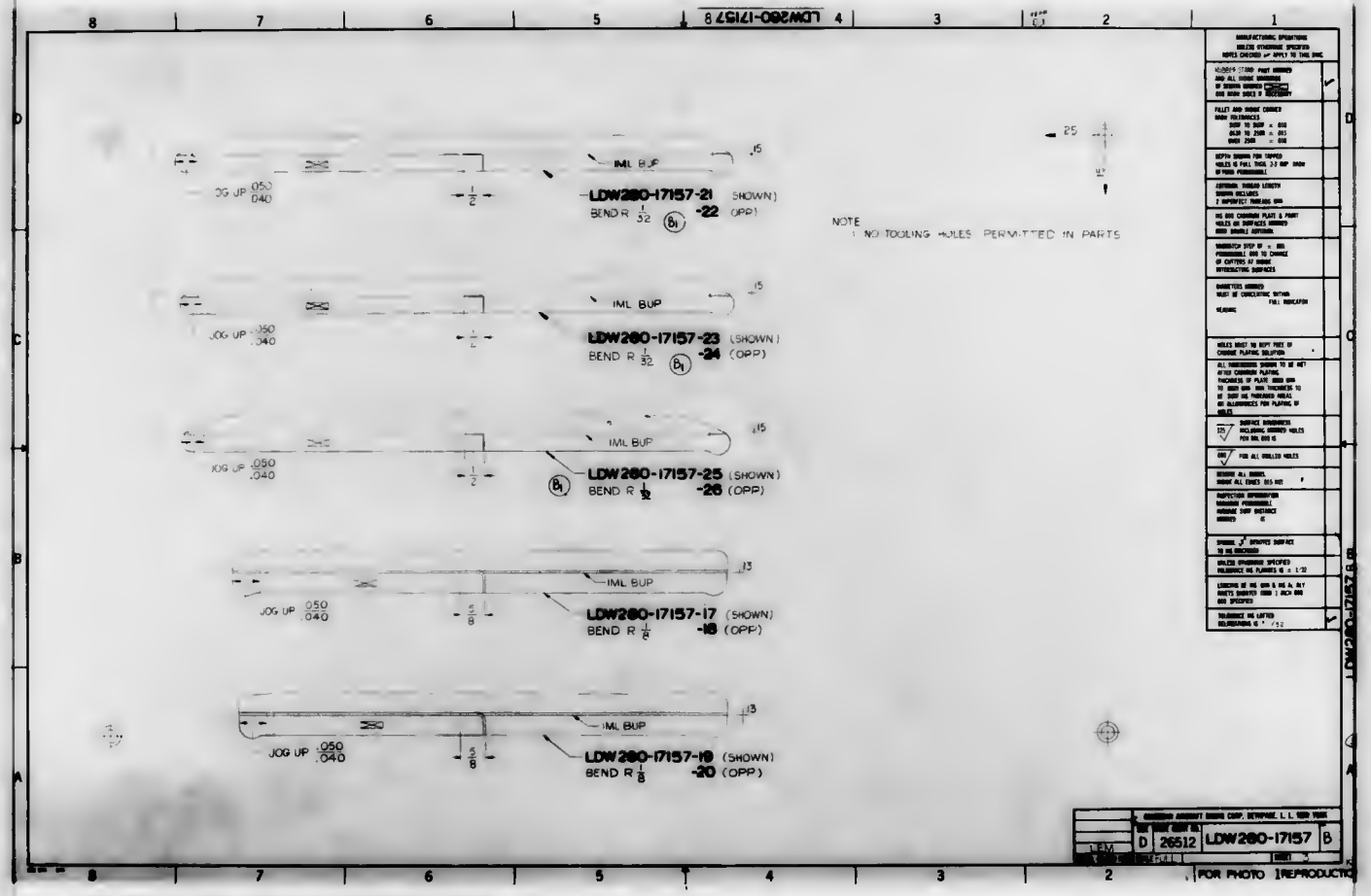
NOTES:
1. NO TOOLING HOLES PERMITTED IN PARTS.
2. THICKNESS OF RAW MATERIAL BEFORE ETCH SEQUENCE SHALL BE .040 ± .005. THICKNESS SHALL NOT VARY BY MORE THAN .003 TOTAL OVER ENTIRE SHEET.
3. WEIGHT OF -11 CHEM-MILL WEB AFTER FINAL TRIM (BUT BEFORE FASTENER HOLES ARE DRILLED) SHALL NOT EXCEED 5.47 POUNDS
4. WEIGHT OF -13 CHEM-MILL WEB AFTER FINAL TRIM (BUT BEFORE FASTENER HOLES ARE DRILLED) SHALL NOT EXCEED 9.60 POUNDS.
5. PRIOR TO ANODIZE -15 (FIM 86 PER LSP 14-9080), DEOXIDIZE PER LSP 14-7020.
6. [redacted]
7. a) DEOXIDIZE IN ACCORDANCE WITH LSP-14-7020 EXCEPT THAT IN PARA 3.5 ONLY THE "HEAVY-DUTY ALUMINUM DE-OXIDIZER SOLUTION" (NITRIC ACID-SODIUM SULFATE) SHALL BE USED AND THE TOTAL IMMERSION TIME SHALL BE AS SPECIFIED IN d) BELOW.
b) CHROMIC ACID ANODIZE IN ACCORDANCE WITH LSP-14-9080 EXCEPT THAT RQTS CONCERNING ANODIC FILM WGT AND/OR CORROSION RESISTANCE SHALL NOT APPLY. THE TOTAL ANODIZING CYCLE TIME INCLUDING VOLTAGE RUN-UP SHALL BE AS SPECIFIED IN c) BELOW.
c) EMITTANCE MEASUREMENTS SHALL BE TAKEN ON BOTH SURFACES OF A FINISHED PART AND WITH A GIER-DUNKEL PORTABLE EMISSOMETER. THE SURFACES OF THE FINISHED PART SHALL HAVE AN AVERAGE TOTAL HEMISPHERICAL EMITTANCE OF 0.40 ± 0.10 @ 100°F.
d) PARTS WHOSE ENTIRE SURFACE AREA HAS BEEN "FLASH ETCHED" IN A CHEM-MILLING BATH SHALL BE DEOXIDIZED FOR 5 MIN MIN & THEN CHROMIC ACID ANODIZED FOR 38 ± 1/2 MINUTES.
PARTS WHOSE SURFACE CONSISTS OF CHEM-MILLED I "AS ROLLED" SURFACES SHALL BE DEOXIDIZED FOR 15 MINUTES & THEN CHROMIC ACID ANODIZED FOR 38 MIN MIN. PARTS WHOSE ENTIRE SURFACE AREA IS IN THE "AS ROLLED" COND SHALL BE DEOXIDIZED FOR 15 MINUTES & THAN CHROMIC ACID ANODIZED FOR 38 MIN MIN. PARTS THAT HAVE BEEN ANODIZED & POSSESS SURFACE EMITTANCE PROPERTIES OUTSIDE THE REQD TOLERANCE MAY BE REWORKED BY DEOXIDIZING FOR 38-45 MIN & THEN CHROMIC ACID ANODIZING FOR 38 MIN

[redacted]

J 26512 LDW280-17142

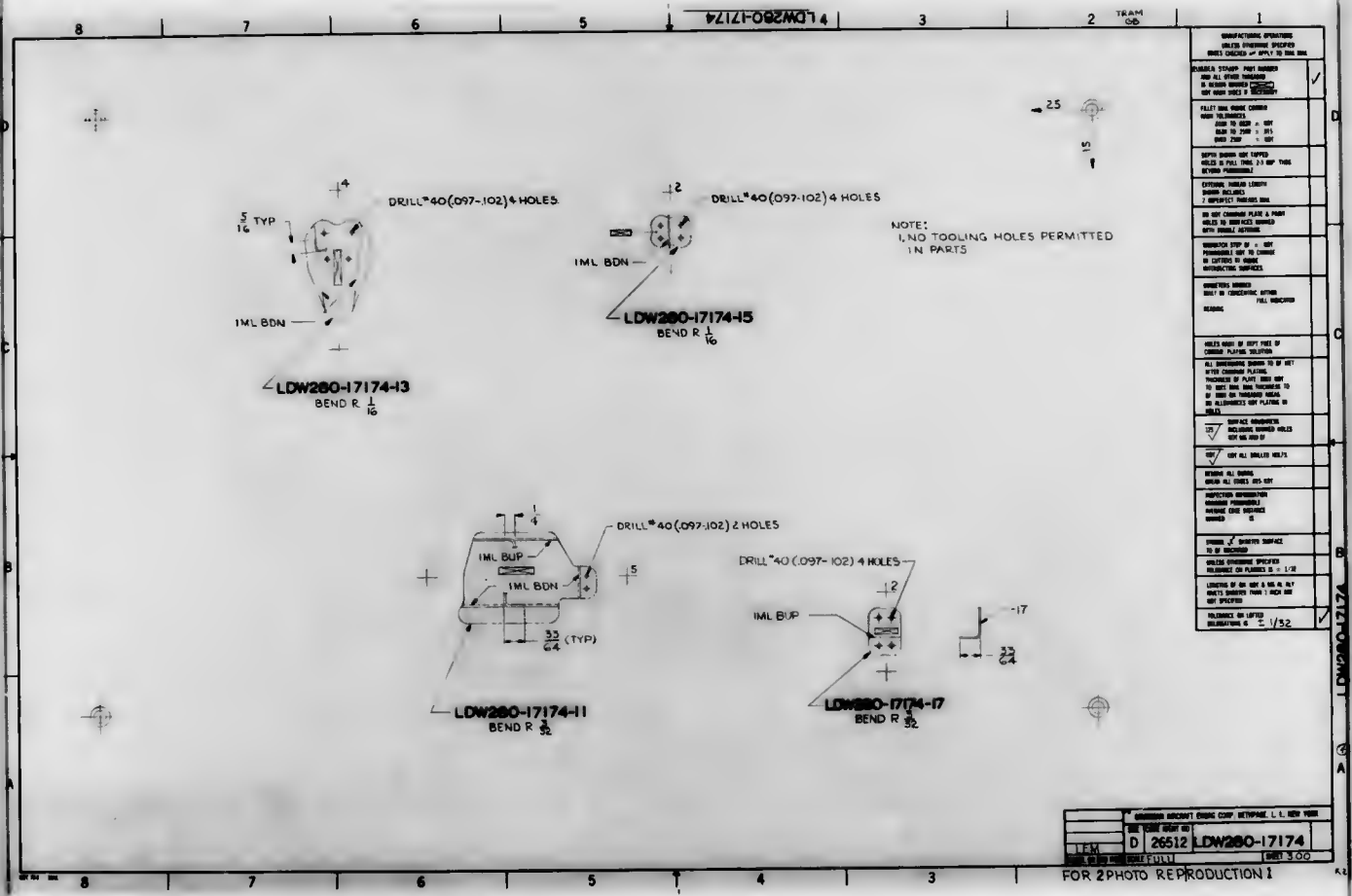
FOR PHOTO REPRODUCTION

LDW280-17142


IML BUP
JOG UP .050 .040
LDW280-17157-21 (SHOWN)
BEND R 1/32 -22 (OPP)
LDW280-17157-23 (SHOWN)
-24 (OPP)
LDW280-17157-25 (SHOWN)
-26 (OPP)
LDW280-17157-17 (SHOWN)
-18 (OPP)
LDW280-17157-19 (SHOWN)
-20 (OPP)
NOTE
1. NO TOOLING HOLES PERMITTED IN PARTS
D 26512 LDW280-17157 B
FOR PHOTO REPRODUCTION

01

NAS 9-1100


LDW280-17174
TRAM 06
DRILL #40 (.097-.102) 4 HOLES
5/16 TYP
IML BDN
LDW280-17174-13
BEND R 1/16
DRILL #40 (.097-.102) 4 HOLES
IML BDN
LDW280-17174-15
BEND R 1/16
NOTE:
1. NO TOOLING HOLES PERMITTED IN PARTS
DRILL #40 (.097-.102) 2 HOLES
1/4
IML BUP
IML BDN
33/64 (TYP)
LDW280-17174-11
BEND R 3/32
DRILL #40 (.097-.102) 4 HOLES
IML BUP
-17
33/64
LDW280-17174-17
BEND R 3/32
D 26512 LDW280-17174
SCALE FULL
SHEET 3 OF
FOR 2 PHOTO REPRODUCTION 1

01

NAS 9-1100

MODEL OR END ITEM	NEXT ASSY	MODULE OR SER NO. GAEC SCH NO	REQD PER MODULE OR END ITEM
PART NO. LDW280-17191-23 & -24			
LM	LDW280-54531	LM-15(45)	1 EA
		THRU	1 EA
LM	LDW280-54531	LM-4(34)	1 EA
LM	LDW280-54531	LTA-3D/R	1 EA

MODEL OR END ITEM	NEXT ASSY	MODULE OR SER NO. GAEC SCH NO	REQD PER MODULE OR END ITEM
PART NO. LDW280-17191-17 & -18			
LM	LDW280-52531	LM-1(3)	1 EA
LM	LDW280-52531	LM-2(32)	1 EA
LM	LDW280-23531	LTA-3(13)	1 EA
PART NO. LDW280-17191-19,-20			
LM	LDW280-25533	LEM-1(31)	1 EA
LM	LDW280-25533	LTA-8(18)	1 EA
LM	LDW280-25533	LTA-5(15)	1 EA

MODEL OR END ITEM	NEXT ASSY	MODULE OR SER NO. GAEC SCH NO	REQD PER MODULE OR END ITEM
PART NO. LDW280-17191-15 & -16		S1-4	
LM	LDW280-54533	LTA-3D/R	1 EA
LM	LDW280-54533	LM-15(45) THRU LM-4(34)	1 EA
PART NO. LDW280-17191-25 & -26			
LM	LDW280-23533	LM-3(33)	1 EA
LM	LDW280-23533	LM-2(32)	1 EA
LM	LDW280-23533	LTA-3(13)	1 EA
PART NO. LDW280-17191-21 & -22			
LM	LDW280-28531	LM-1(31)	1 EA
LM	LDW280-28531	LTA-8(18)	1 EA
LM	LDW280-25531	LTA-5(15)	1 EA

(5)

SH REV STATUS: FOR DESCRIPTION OF REV SEE SUBQ SH										
SHEET	1.00	1.10	2.00	3.00						
REV	C	C	B	B						
SHEET										
REV										
SHEET										
REV										

LAST SECT LTR USED	
LAST DASH NO. USED	-26

GRUMMAN REL-INFO C
PRIM NO. 1K001
207 ME-16E-1/25/69

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES.
TOLERANCE UNLESS SPECIFIED
FRACTIONS - DECIMALS - ANGLES
±1/32 .020 ±1/2

ORIG DWG AUTH	
DETAIL SPEC REQUIREMENT	
CLASS II ENGRG CHANGE	
CLASS I ENGRG CHANGE	

CONTRACT NO. NAS 9-1100 LINE ITEM *1 DOCUMENTATION TYPE II

DRAWN BY	J Gardella 11-9-65	RELIABILITY
LAYOUT BY	R Rieke 11/24/65	
CHECKED BY	[illegible] 11-23-65	
GR LEADER	[illegible] 11/29/65	
VEH DES INT	[illegible] 11/29	
STRUCTURES	I.K.W. Feb 12/6/65	PROJ ENGR [illegible] 12/16
STRUCTURES	[illegible] 12-10	REL GROUP [illegible] 12/18
WEIGHTS	[illegible] 12-16	

GRUMMAN AIRCRAFT ENGRG CORP
BETHPAGE, L. I., NEW YORK

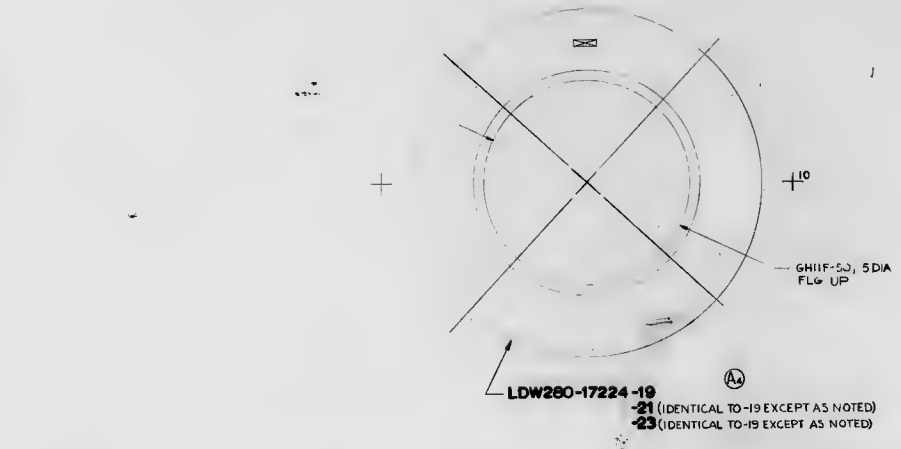
STIFFENER
DESCENT STAGE ~ AFT ASCENT STAGE SUPPORT

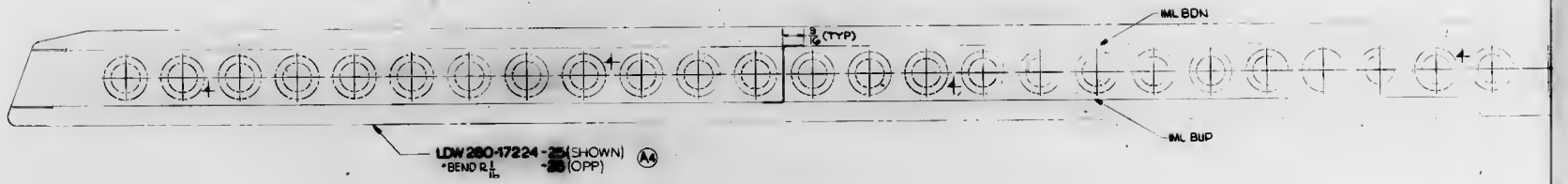
SIZE	CODE IDENT NO.		
B	26512	LDW280-17191	C
SCALE NONE		SHEET 1.00 OF 4	

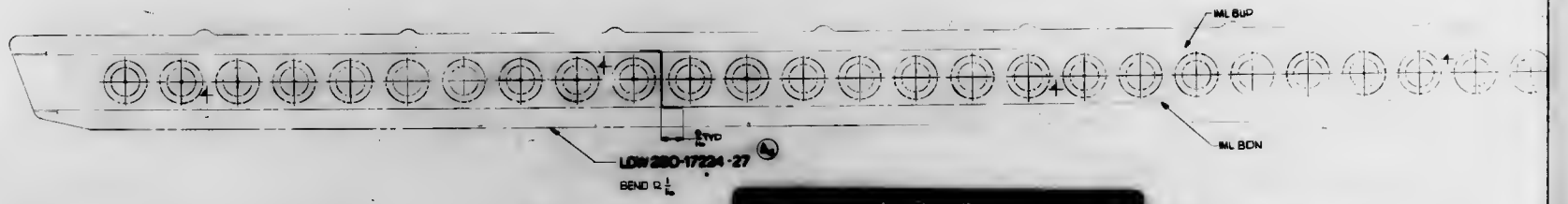
ENG 77.1 9-64

SWIP

01
NAS 9-1100





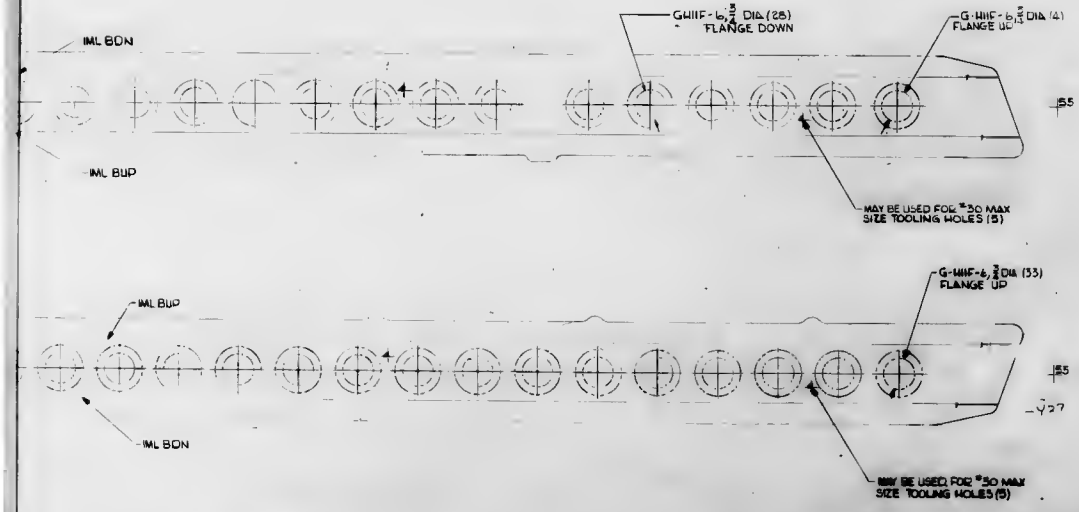


C / 02

NAS 9-1100

CODE IDENT NO 28942

LDW280-17224 SH 3


IML BDN
G-MHF-6, 2 DIA (28) FLANGE DOWN
G-MHF-6, 2 DIA (41) FLANGE UP
.55
IML BUP
MAY BE USED FOR Ø.50 MAX SIZE TOOLING HOLES (5)
G-MHF-6, 2 DIA (33) FLANGE UP
IML BUP
.55
.727
IML BDN
MAY BE USED FOR Ø.50 MAX SIZE TOOLING HOLES (5)

NOTE:
1. NO TOOLING HOLES PERMITTED IN PARTS EXCEPT AS NOTED

02/02

NAS 9-1100

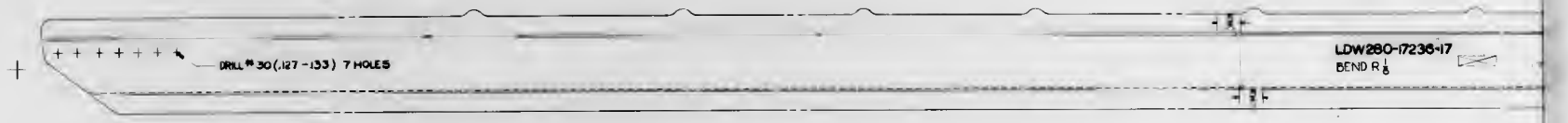
CODE IDENT NO 28512
LDW280-17224 SH 3

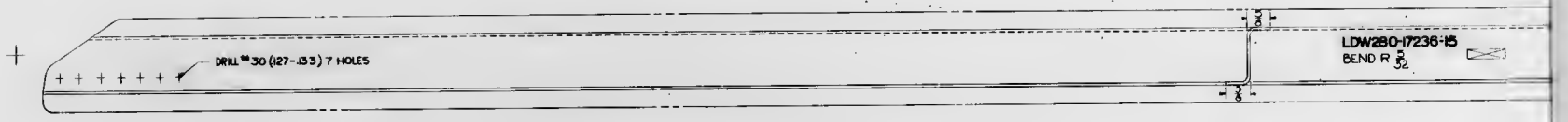
LDW280-17224 A

H 26512 LDW280-17224 A

SIZE FULL SHEET 3

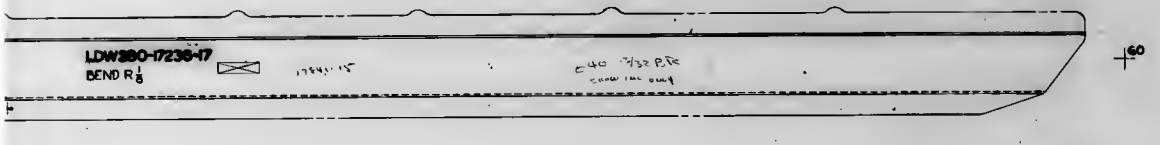
FOR PHOTO REPRODUCTION

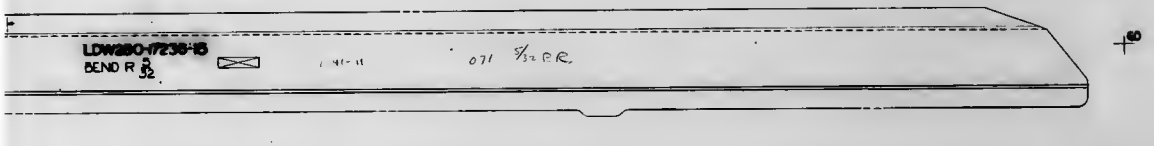


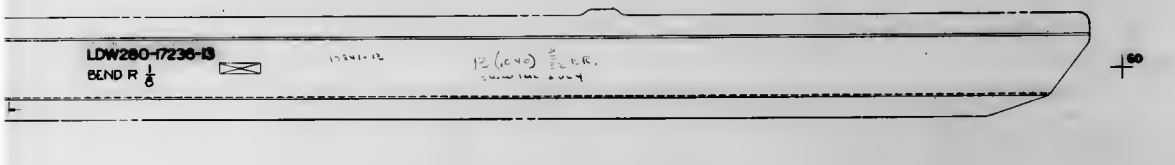


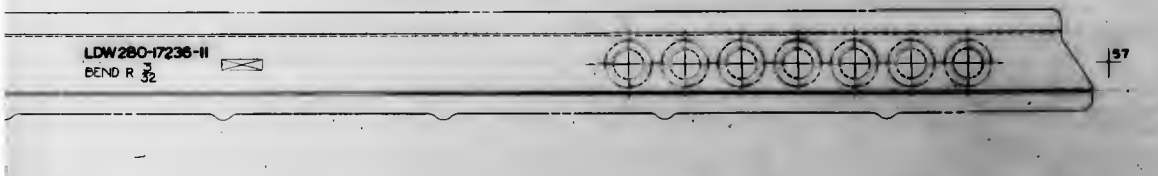
C / 03 NAS 9-1100

CODE IDENT NO. 26512
LDW280-17236 SH 3









NOTES:
1. NO TOOLING HOLES PERMITTED IN PARTS

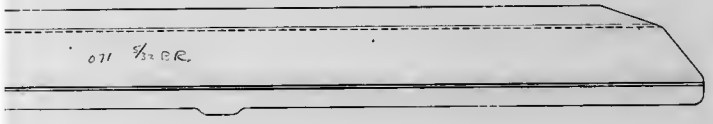
[redacted]

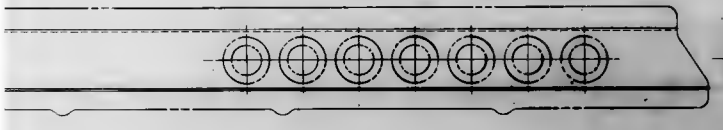
NAS 9-1100

CODE IDENT NO. 26512
LDW280-17236 SH 3

CODE IDENT NO. 84892
LDW280-17236 SH 3

FOR PHOTO





NOTES:
1. NO TOOLING HOLES PERMITTED IN PARTS

[redacted]

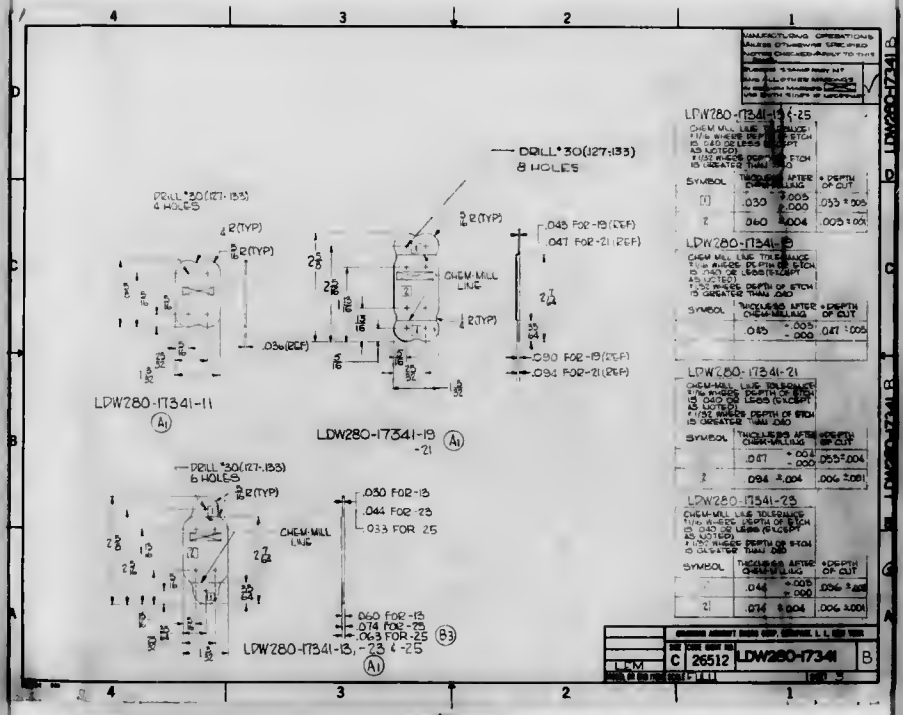
NAS 9-1100

LDW280-17236

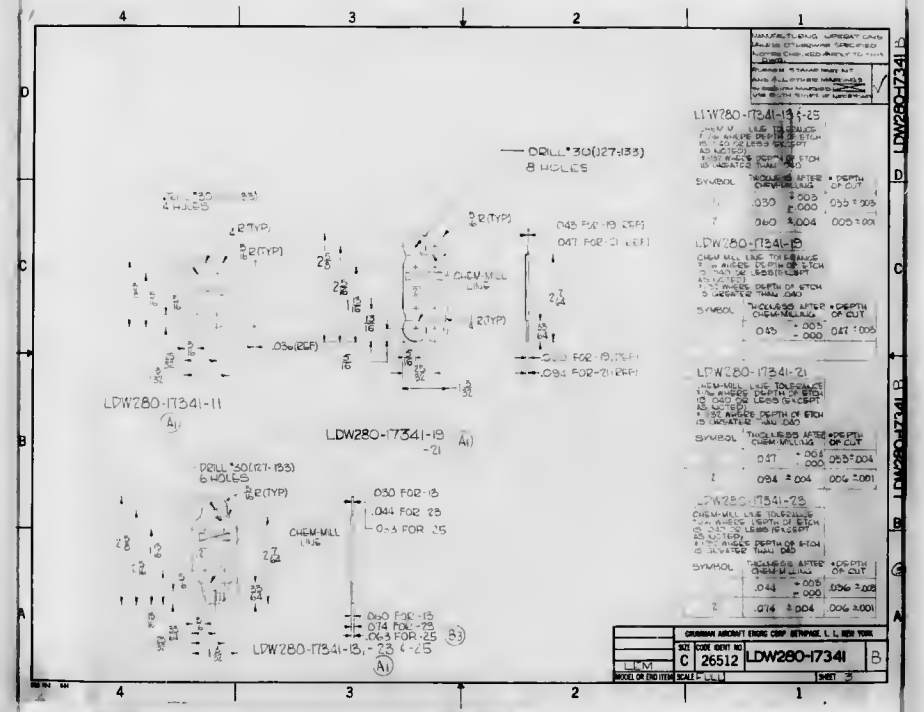
LDW280-17236

FOR PHOTO REPRODUCTION

K4


DRILL .30(127-133)
8 HOLES
DRILL .30(127-133)
4 HOLES
2 (TYP)
2 (TYP)
.036(REF)
CHEM-MILL LINE
2 (TYP)
.045 FOR -19 (REF)
.047 FOR -21 (REF)
.090 FOR -19 (REF)
.094 FOR -21 (REF)
LDW280-17341-11
A1
LDW280-17341-19
-21
A1
DRILL .30(127-133)
6 HOLES
2 (TYP)
CHEM-MILL LINE
.030 FOR -13
.044 FOR -23
.033 FOR 25
.060 FOR -13
.074 FOR -23
.063 FOR -25
LDW280-17341-13, -23 & -25
B3
A1
LDW280-17341-19-25
SYMBOL
THICKNESS AFTER CHEM-MILLING
DEPTH OF CUT
.030
.060
.045
.047
.090
.094
.044
.074
LDW280-17341-21
LDW280-17341-23
C
26512
LDW280-17341
B
LDW280-17341B
HAS 9-1100

[redacted]



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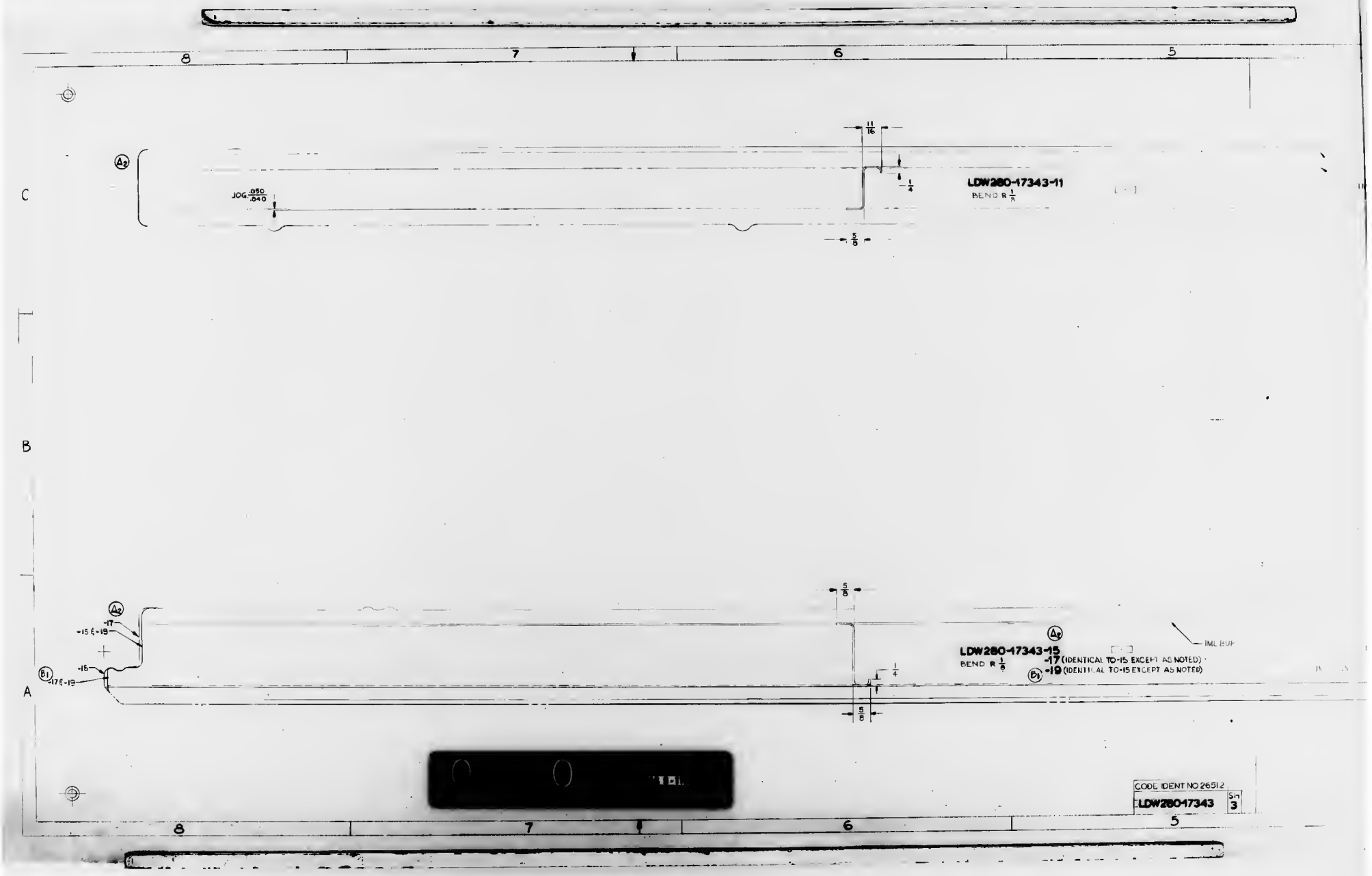
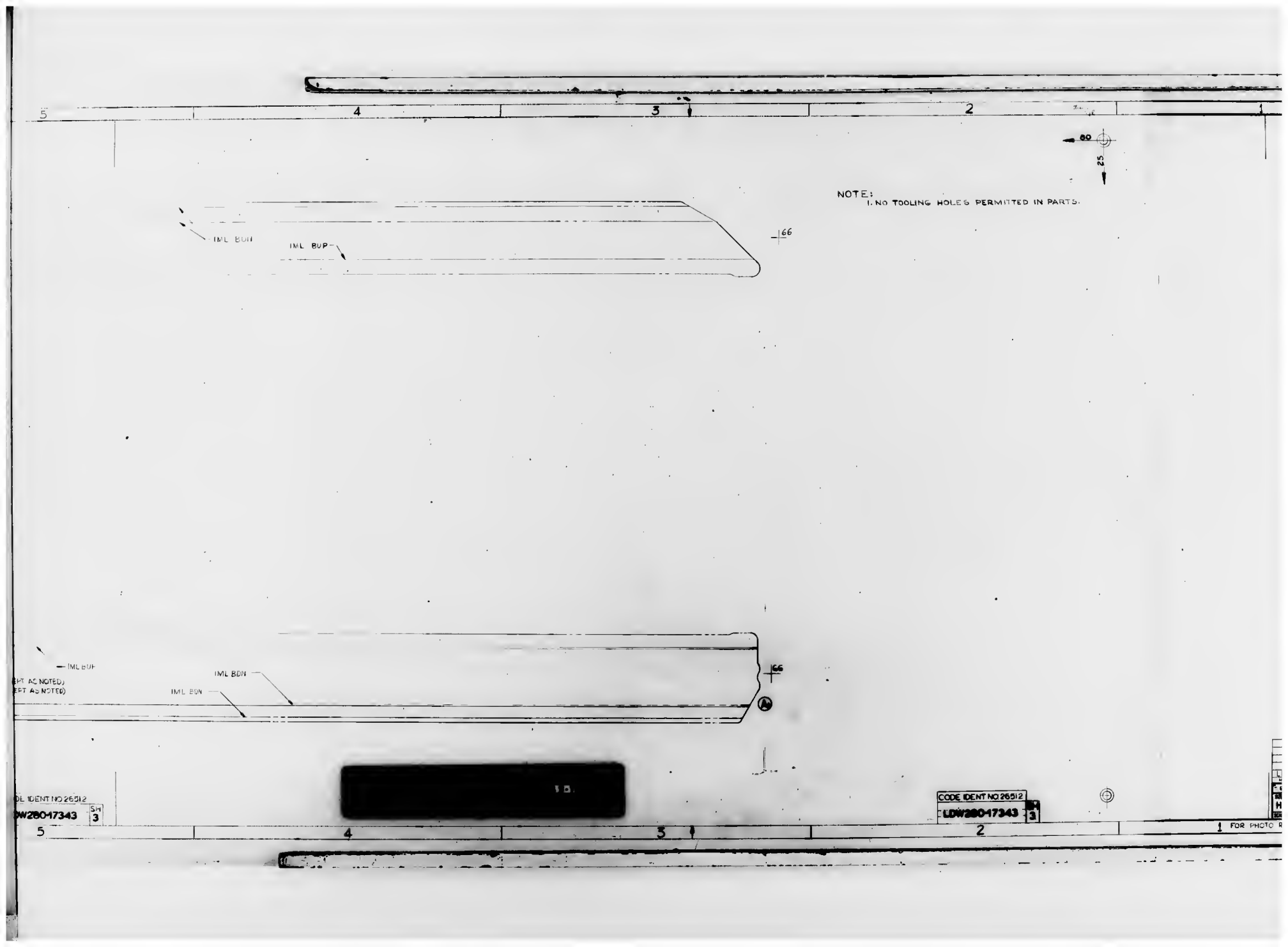
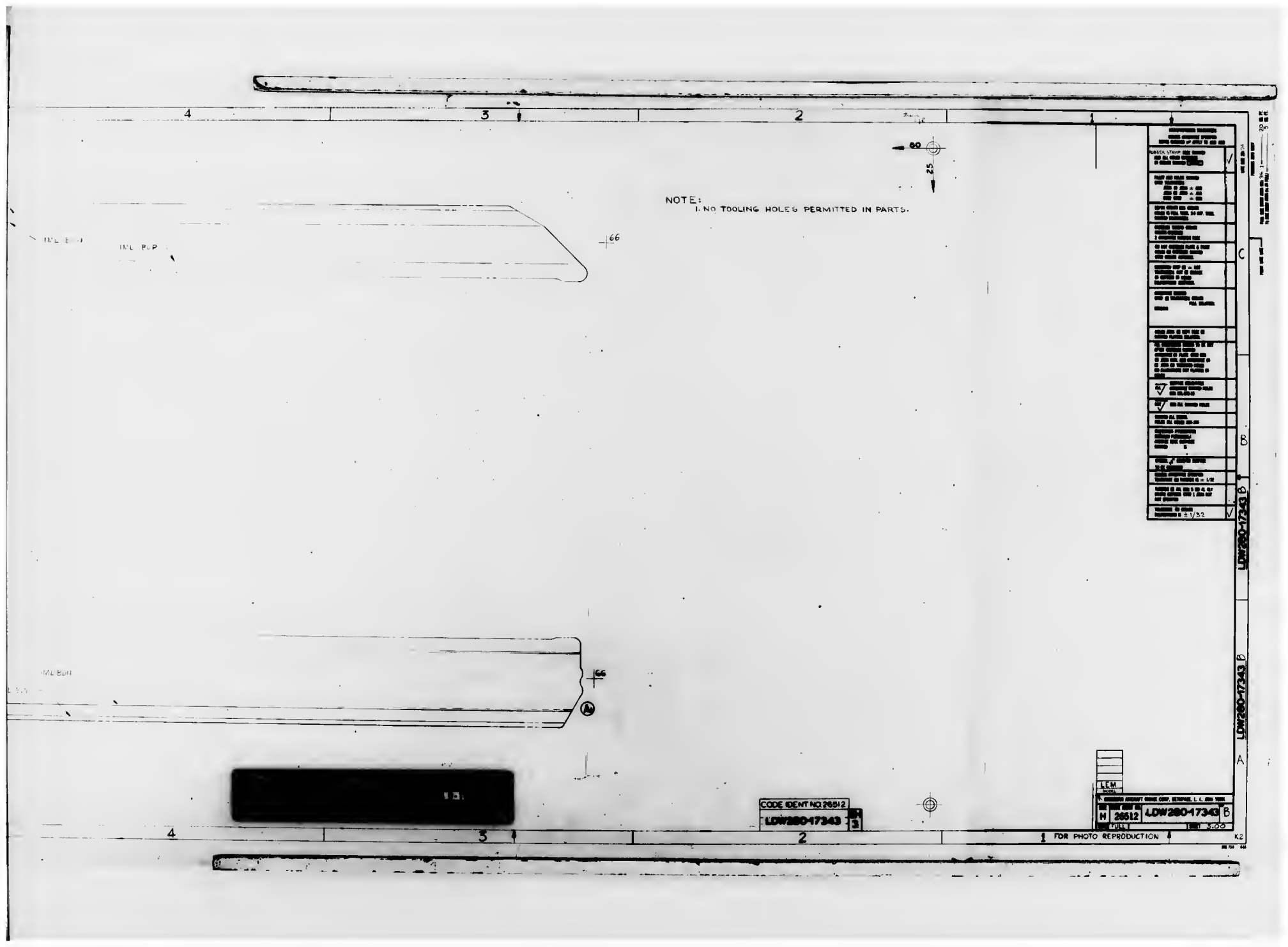
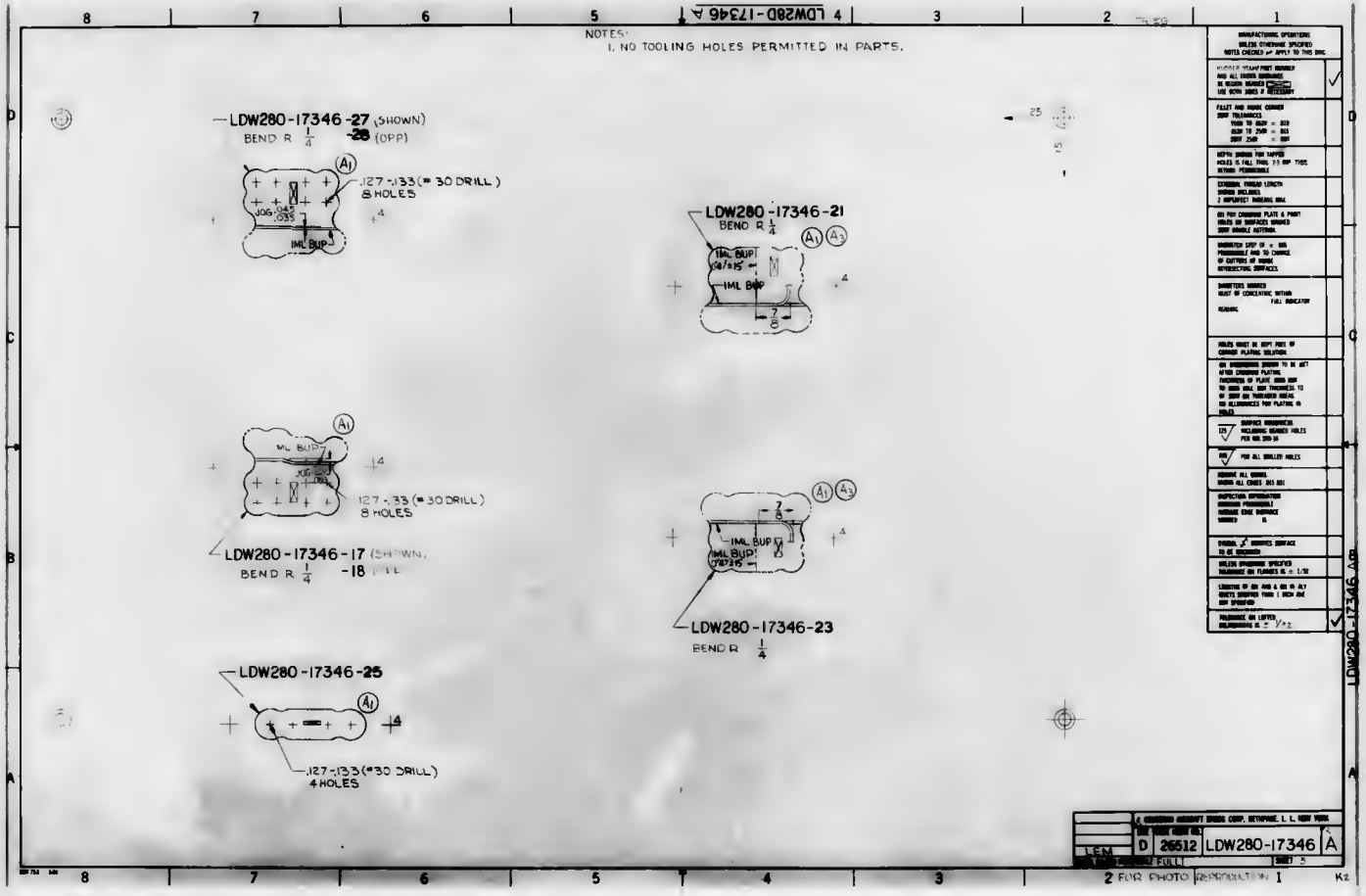
NAS 9-1100


8
7
6
5
C
B
A
A2
JOG .050 .040
11/16
1/4
5/8
LDW280-17343-11
BEND R 1/8
A2
-17
-15 & -19
-15
B1
-17 & -19
5/8
1/4
5/8
A2
LDW280-17343-15
BEND R 1/8
-17 (IDENTICAL TO -15 EXCEPT AS NOTED)
-19 (IDENTICAL TO -15 EXCEPT AS NOTED)
B1
IML BUP
CODE IDENT NO 26512
LDW280-17343
SH 3


5
4
3
2
.80
.25
NOTE:
1. NO TOOLING HOLES PERMITTED IN PARTS.
IML BDN
IML BDP
166
IML BDP
IML BDN
IML BDN
166
A
[redacted]
CODE IDENT NO 26512
LDW28017343
3
5
4
3
2
FOR PHOTO R


NOTE:
1. NO TOOLING HOLES PERMITTED IN PARTS.
CODE IDENT NO 26512
LDW280-17343
LEM
H 26512 LDW280-17343 B
FOR PHOTO REPRODUCTION


LDW280-17346 A
NOTES:
1. NO TOOLING HOLES PERMITTED IN PARTS.
LDW280-17346-27 (SHOWN)
BEND R 1/4
-28 (OPP)
A1
.127-.133 (#30 DRILL)
8 HOLES
.045
.035
.106
IML BUP
LDW280-17346-21
BEND R 1/4
A1
A3
IML BUP
.067±.015
IML BUP
7/8
LDW280-17346-17 (SHOWN)
BEND R 1/4
-18
A1
IML BUP
.106
.045
.035
.127-.133 (#30 DRILL)
8 HOLES
LDW280-17346-23
BEND R 1/4
A1
A3
7/8
IML BUP
IML BUP
.067±.015
LDW280-17346-25
A1
.127-.133 (#30 DRILL)
4 HOLES
MANUFACTURING OPERATIONS
UNLESS OTHERWISE SPECIFIED
NOTES CHECKED ✓ APPLY TO THIS DRG.
HOLES
FILLET AND RUNOUT CORNER
SURF TOLERANCES
DEPTH SHOWN FOR TAPPED
HOLES IS FULL THDS TO BOP THDS
WITHIN PERMISSIBLE
EXTERNAL THREAD LENGTH
SHOWN INCLUDES
2 DIAMETRAL THREAD MIN.
ALL FOR CHROMIC PLATE & PAINT
HOLES ON SURFACES MARKED
SURF GAUGE MATERIAL
MACHINED STEP OF ± .005
PERMISSIBLE AND TO CHANGE
OF CUTTERS OF MORE
REPRESENTING SURFACES.
DIAMETERS MARKED
MUST BE CONCENTRIC WITHIN
FULL INDICATOR
READING
HOLES MUST BE KEPT FREE OF
CORROSIVE PLATING SOLUTION.
ALL DIMENSIONS SHOWN TO BE MET
AFTER CHROMIC PLATING.
THICKNESS OF PLATE SHOWN ADD
TO BASIC HOLE SIZE THICKNESS TO
OF SURF ON THREADED AREAS.
NO ALLOWANCES FOR PLATING IN
HOLES
SURFACE ROUGHNESS
125 ✓ INCLUDING MARKED HOLES
PER MIL-STD-10
63 ✓ FOR ALL DRILLED HOLES
REMOVE ALL BURRS
BREAK ALL EDGES .015 MAX
INSPECTION APPROVAL
UNLESS OTHERWISE SPECIFIED
TOLERANCE ON FLANGES IS ± 1/32
LOCATION OF DIA A DIA B IN ALL
CASES STEPPED THRU 1 INCH MAX
SURF SPOTFACE
TOLERANCE ON LISTED
DIMENSIONS IS ± 1/32
LDW280-17346-A
D 26512 LDW280-17346 A
SCALE FULL
SHEET 5
8 7 6 5 4 3 2 1
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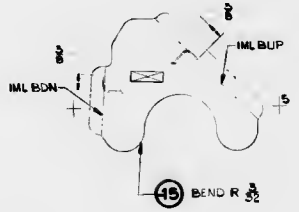
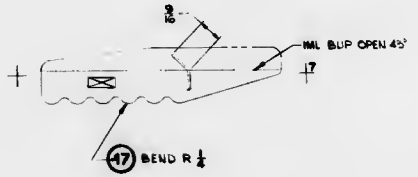
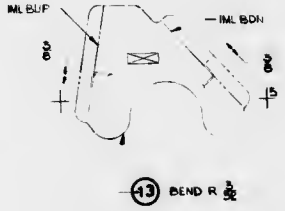
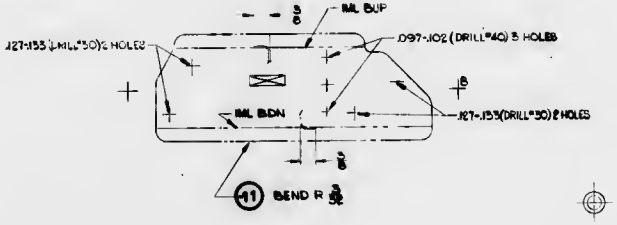
NOTES:
1. NO TOOLING HOLES PERMITTED IN PARTS.









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